

University News

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ARUNA SINHA & KUSUMLATA KEDIA

Eco-Awareness : Implications for Social Studies and Research

AUTAR S. DHESI

Public Examinations : Issues of Credibility, Creativity and Social Justice

G.G. CHRISTO & PLNG RAO

The Categorization of Medical Colleges

DEVESH KISHORE

Distance Education Through Video Conferencing

MANMOHAN SINGH

Science, Spirituality & Education — Convocation Address

SARASWATI SAMMAN 1995

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Editor :
SUTINDER SINGH

Eco-Awareness : Implications for Social Studies and Research

Aruna Sinha*
Kusumlata Kedia**

Dissemination of knowledge is a very important function of the present university system. Its usefulness, however crucially depends on *what* is being disseminated. In other words, the content of that dissemination

The present university system unfortunately has become totally blind to this by virtue of the fact that it has divorced itself from the 'creation of knowledge' aspect altogether — which is begotten out of a deep sensitivity and proper appreciation of the problems, challenges before the society. This is woefully neglected in the present state of academics. The reason may not be far to seek, for we have been trained in the 'renascent European rationality' (so different from the traditional function of reason) which believes in (a) division of mind and matter, (b) conception of universe as a mechanical gadget reducible into separate building blocks, governed by certain universal laws, amenable to empirical verification (without the interference of value laden ideas) — purely objective in nature, and hence manipulable as and when desired. Education built upon this premise has produced by and large academicians reverted to an unthinking and imitative role well trained into an odd process of rationalisation, about which Capra comments so lucidly in his seminal work *The Turning Point* "It is a striking sign of our time that the people who are supposed to be experts in various fields can no longer deal with the urgent problems that have arisen in their areas of expertise. Economists are unable to understand inflation, oncologists are totally confused about the causes of cancer, psychiatrists are mystified by schizophrenia, police are helpless in the face of rising crime, and the list goes on. In the United States it has been tradition for presidents to turn to academic people for counsel, either directly or thru 'brain trusts', and 'think tanks' set up explicitly for the purpose. But in 1979 the Washington Post ran a story under the heading 'The Cupboard of Ideas is Bare'.

As source of their confusion or retreat the intellectuals cited 'new circumstances' or 'the course of events' .. Vietnam, Watergate, crime, poverty etc. But none of them identified the real problem : the fact that most academics subscribe to 'narrow perceptions of reality' which are inadequate for dealing with the major problems of our time."

Coming straight to the point, i.e. the question of social studies/ research, while the Third World Countries (TWCs) are grappling with the problem of spiralling population, poverty, pollution, 'Fund-Bank' conditionalities owing to loans after loans in the name of various aid programmes, trade treaties under the much alluring but ever-eluding word *Development*, study and research in the subjects falling under the category of social studies are fashioned on the assumption of (a) 'linear

*Asso. Prof. in Modern History, B.H.U., Varanasi-221 005

**Prof. in Social Sciences, Gandhian Institute of Studies,
Rajghat, Varanasi-221 001.

'growth and development' (b) of 'the western kind' not only feasible on an infinite time scale' but 'debatable as well'.

The goal is 'catching up with the north' based on the belief that development of the modern kind alone is the way to ensure eradication of poverty, distributive justice and human happiness. The only issue that needs resolution is — picking up the right strategy for its realisation. The facts such as (a) the LDCs have dynamically followed the western ways of industrialisation all these years, (b) still the performance was dismal, (c) Seventies were proclaimed 'development decade', (d) followed by 'frontal attack on poverty' programme but all ending up in a fast worsening situation in terms of deprivation, displacement, slums, anti-social activities, unemployment, terrorism, disease, (e) the onslaught of LDCs in the name of 'liberalisation of economy' began, and (g) the threat of neo-colonialism (Gandhi, Gatt for example) — have all remained in oblivion so long for the academicians. On top of it, coming in of some devastating publications such as *Limits to Growth*, *The Closing Circle*, *The Blue print for Survival*, *How the other half lives?* *The Turning Point* (name just a few) have not made one single dent in the idiom of discussion—which remains the old cry 'how to modernise our economies?' Everything else goes in the name of this one point programme, believing that the 'ideal' societies are modern, western capitalist societies. The concerns then are (a) what are the constraints in becoming 'Modern'? (b) which value (social, cultural or religious) will be more conducive to modernity? (c) which value works as obstruction towards the realisation of the goal and how to get rid of it? (d) which political system is more fitted for the task? (e) how to reshape our prevailing structures? (f) whether the colonial integration helped us push forward? and such others of the same genre.

Surprisingly there is no awareness of the most critical fallout of the present day development, i.e. 'eco-disaster', the impending threat of resource depletion, the desertification and pollution, promoting a poisonous disbalance all over the planet. In technical terms, it is called the 'resource crunch' or 'carrying capacity of planet'. Whereas this should have put issues in perspective, we still cling to a body-knowledge which in fact grew to serve the industrial age in the West, and served it to such extent that today the planet earth can no longer sustain the life-style pursued there (which TWCs

are trying hard to imitate). The famous report, *Limits to Growth*, is concluded thus, "The crux of the matter is not only whether the human species will survive, but even more whether it can survive without falling into a state of worthless existence".

But now in the West (which is our *Idol*) there is a growing realisation (a) that neglect of ecological factor was a serious lapse, (b) 'growth' is not possible on a linear scale, (c) it does not mean 'development', (d) it is not something necessarily good or leading to happiness, (e) social justice need not necessarily follow from the class-conflict model, etc. Nevertheless the feeling here is : (a) these ecological hazards are not the headache of TWCs who have not yet sufficiently developed, (b) it will be inhuman to neglect the problems of abject poverty, deprivation, misery and hunger merely on plea of ecological consideration, (c) first we should achieve at least 'reasonable' level of development, (d) which clearly means dynamic industrialisation, commercialisation through the use of western technology. It is a pity nobody is noticing how this development model has unleashed forces of widespread dislocation — making the 'poor' 'poorer' in the ultimate analysis — be they people, classes or nations. For the moment adverse effects of any technology are realised, it is exported from West to the developing world (through MNCs) under the so-called 'transfer of technology'.

It is time to aver that countries may be divided into geographical boundaries, but the atmosphere or the eco-system cannot. If its limits are reached because of one nation or group or ideology — others have to face the consequences (examples of acid rains, atomic pollution and other degenerative processes which are rampant from the same cause in many parts of the world). Even if we decide to ignore these 'extreme' (?) examples, can we get away from those which directly affect us — the fast depleting fossil fuel reserves, coal, petroleum for instance, or the eroding soil vitality whilst disintegrating its structure, increasing the disease-proneness of crops (to say nothing of the people who eat them) by novel forms of agriculture. This list can be detailed to any extent (not permissible here) but the gist of it is 'an awesome explosion of environmental wantonness' (not to speak of the human dimensions of this debacle). If the consumption habits of just 20% of world's population can end up in a general vandalism of the planet within less than 7 decades, how many years will this ecology bear the burden of

consumption in case the entire world's population were to achieve that standard — is anybody's guess. Neck-deep in western system of knowledge, the Euro-centric phenomenon has totally escaped our attention. Not realising that the experience of Europe of last 200 years is not the experience of 'mankind', 'world', 'humanity' (as so often portrayed), we are hooked to the Newtonian — Cartesian Mechanistic world view and the reductionist logic ensuing therefrom, with all its conceptual categories that dominate the field of social sciences. This alien perspective and fixation with the west as a reference group has landed us in mundane priorities, wrong consciousness, rejection of essentials for the peripheral and distorted planning.

The question of 'eco-awareness' is in fact closely linked with the question of paradigm-shift, which is a hot topic of debate in the west today, because of the realisation that major problems of our times are systemic and thus require a systemic approach to understand and work with them. Consequently while the serious scientists are busy exploring a new synthesis and providing unified framework for understanding 'life, mind and consciousness', there is search for theory and practice of New Economics, oriented towards sustainability, community and social justice, in face of the environmental devastation being caused by current economic models. Likewise, in the discipline of psychology there is an attempt to face questions such as 'Is there a relationship between the condition of people's inner life and the state of the world?' or 'What is the impact of human desire, fear and inner insecurity on the way we behave towards the environment and human community?'; and in the field of education to structure courses that will identify the values and social frameworks appropriate for the environmental sustainability.

Unfortunately our university academia is more in the nature of sheep and shepherds, unwilling to open up debate beyond the usually defined limits. Therefore what it disseminates is 'knowledge' flowing from the existing paradigm. Truly speaking, it will be cowardly on the part of academic community to avoid grasping the nettle, and continue to bask in obsolete, unrealistic assumptions. As a pioneer thinker of our times puts it, "the only escape from agony, collapse and mummification, calls for a deep re-examination of the main premises and values of our culture, rejection of those conceptual models that have outlived their usefulness, and a new

recognition of some of the values discarded in previous periods of our cultural history.."

An appreciation of the discussions about 'paradigm shift' has very different implications for our research priorities and methodology. To begin with, it involves "a profound change in the thoughts, perceptions, and values that form a particular vision of reality", and then dealing with different set of questions — for example (a) what can be those alternative ways which can make man happy without achieving an extremely high level of material prosperity of the modern kind? (b) how to evolve an economic system which is conducive to a healthy ecology, polity, social norms and cultural life? (c) how to translate our reverence for nature into our day to day existence?

A radically different perception of the world will show that if a civilisation appears stable/static through centuries, it by no means implies that the civilisation is stagnant, has no creativity, or dynamism. It will also show that change does not mean 'dynamism', that 'dynamism' is not necessarily 'progressive', that 'progress' is not at all to be linked with 'economic growth'; that 'economic growth' has nothing to do with 'development'; that 'development' has very different connotations for a civilisation. This new perception will help us understand, that a society may/need not pass through the 'inevitable' five stages (Marx), that 'socialism' need not come after a terrible period of capitalistic exploitation, that this may not necessarily be preceded by an equally terrible state of 'feudalism' — characterised by bondage, slavery and serfdom. It will help the social scientist to accept the existence of a fundamentally different social and economic organisations, societies with an altogether different category of institutions than what we have so far known about them.

With all these realisations as the backdrop for any meaningful research pursuit, it will not be difficult for them to see that the experiences of *one* civilisation (European) of only 200 years cannot/should not be accepted as the total experience of human race. Vice versa it will make sense not to reject the accumulated experiences of older societies as bizarre, unworthy of serious notice, in the modern world.

And finally the question of questions which did not strike so far, 'can we afford any further down the same road?'

PUBLIC EXAMINATIONS

Issues of Credibility, Creativity and Social Justice

Autar S. Dhesi*

The origin of public examinations can be traced to the school entrance and civil services examinations of China, which go back at least to the period of Sui emperors (518-618) with a pre-history going back much further. Gradually, the practice spread to Europe and elsewhere. Here we will discuss traditional examinations for certification as well as the entrance examinations which have come in vogue in recent years in India.

These examinations purport to serve a number of functions. The most obvious is to assess the competence of students' learning vis a vis some agreed standards. The examination results then usually become the basis to discriminate among students with regard to their preferred choices — general higher education, professional training or employment. Another important function of public examinations is certification — an indication of a student's competence. This serves an important function particularly for those who are leaving the educational system. Due to strong emphasis on selection, this function seems to get less and less attention. In any case, due to a number of reasons, credibility of public examinations in India, as a measure of competence has been largely eroded over the years. A paradoxical situation has come to prevail when the universities do not repose faith in the results of examinations conducted by them for selecting students for their own courses. As a result, a disconcerting trend of entrance examinations for everything, conducted by the same universities/institutions which have already lost credibility in the field, has emerged throughout the country. The performance in entrance examinations has become almost the sole basis for selecting students for professional institutions, university departments and even colleges in some cases. The underlying assumption is the unfailing efficiency of such examinations in their discriminating function, hence their acceptance as the rational basis for distribution of seats on merit. Since higher education is highly subsidised

in India, this and other underlying assumptions need to be carefully examined. Even if it is accepted that rewards should be distributed on merit, a range of questions about the desirability, adequacy and fairness in the use of these examinations for the purpose arise. In this context, the discussion pertains to the following issues :

- a) Whether exclusive reliance on performance in entrance examination for filling the slots in higher education is academically a sound procedure?
- b) Whether this method of selection is equitable? Put explicitly. Are chances of success loaded unjustly in favour or against students of a particular social background, place of residence or language group?
- c) What is the likely impact of entrance examinations on higher education as a creative process?

The high stakes which are attached to examinations, both for certification and selection have two important consequences. The first is that achievement/success is defined by examinations whatever their limitations. Secondly, examinations seem to have become obtrusive rather than unobtrusive measures of success. Given this situation, it is important that we should consider the nature of examinations and their impact on learning and teaching since this might have implications of equity, particularly for those who fail to be selected for further education. Several studies have indicated the limitations of examinations as instrument for assessing the achievements of students. First, the examinations are generally confined to the measurement of cognitive skills and for the most part at low taxonomic level (e.g. the recognition or recall of factual knowledge) rather than higher-order achievement, for example, the ability to synthesize knowledge or apply principles to new situations. Second, most examinations are limited to pencil and paper tests. A wide range of knowledge and skills that cannot be

*Professor of Economics, Guru Nanak Dev University, Amritsar

assessed through such examinations are ignored. Third, examinations may be conducted in a language that discriminates against major sections of the society rendering them inadequate and unjust measures of achievements.

Professions like engineering, medicine and dental surgery requiring marked aptitude for practical skills and dexterity of hands may not get suitable candidates under the circumstances. In some industrialised countries, no candidate is admitted to training for these professions unless he/she has worked for some time on the factory shop floor or in a hospital as the case may be. In the absence of selection of candidates with proper aptitudes, many graduates in these disciplines in India opt for white-collar administrative positions. The highly subsidized training thus goes waste. At the same time, the basic sciences requiring candidates with capabilities for creative original research may also not get suitable candidates due to inadequacy of examinations to identify them. So the country will have neither good engineers and surgeons nor research scientists. The reservations with diluted minimum standards will only make things worse. So the system of selection is both inequitable and highly wasteful.

This method of selection is also likely to affect adversely higher education as a creative process. This is because examinations' impact on teaching (what is taught and how it is taught) and on learning (what is learned and how it is learned), translates the limitations of examinations into restricted opportunities for students to learn. These limitations manifest themselves in a number of ways. First, alignment takes place between what is taught and the objectives of examinations. So things that are examined will be taught and stressed upon, what is not examined will not be taught, or if it is, will receive scant attention. Second, teachers tend to emphasize cognitive skills and neglect practical ones. Third, the curriculum is further reduced in scope with teachers choosing topics within subjects that they think are likely to appear in examinations. Fourth, an examination that focusses on isolated skills, components and the recall of factual knowledge can be expected to result in similar skills components and knowledge being emphasized in the classroom. A curriculum dominated by examinations is unlikely to provide adequate educational experiences for students. A wide range of important

activities such as writing, oral skills, practical skills and local languages is neglected. The social skills and transferable cognitive skills such as adaptability, problem solving, analytical ability are ignored.

Finally, the administrative aspects of these examinations create inequities for many students. The candidates are charged heavy fees and they usually appear in more than one test at different places to improve their chances of selection. The most disturbing development however, is that the system of entrance examinations has created ample opportunities for the rent seeking groups. The examining bodies are increasingly inclined to consider these tests a source of income, and have no qualms about cashing on the pitiable condition of candidates, especially the poor or lower middle class candidates struggling for their survival.

The high stakes on performance in these examinations have encouraged the unethical practice of private tuitions. The teachers tend to ignore those in a class who do not have arrangements to meet them for tuition at home. So students' whose parents cannot afford private tuitions are likely to be weeded out of the system. The language of entrance examinations — English also benefits those who attend the English medium private schools. The interests of candidates belonging to scheduled castes/tribes and other backward class categories are protected by reservations. Those belonging to the deprived sections in the general category — urban poor and ruralities will be the worst sufferers. The experience of recent years suggests that these sections of society have largely been marginalised as far as quality in higher education/professional courses is concerned. Unless a more rational system of distributing opportunities in higher education is worked out, there would be no end to *Mandalisation/Re-Mandalisation* of the society and the ensuing social tensions.

Considering the impact of entrance examinations on higher education as a creative process, a significant number of teachers gladly move off the academic track to make a few extra bucks. For months they remain busy with making preparations, conducting, evaluating and finalising results when they should be doing research/updating teaching material for the next session. This inbuilt 'disruptive' patronage system suits many unscrupulous

pulous heads of institutions for objectives totally unacademic. The malpractices associated with such examinations are widely discussed among the people. These may be a highly exaggerated and distorted view of reality. What matters in such a situation, however, is people's perceptions of reality and not reality itself. In any case, it is difficult for any one to believe that the same set of people/institutions can do a creditable job of entrance examinations when they lack faith in the results of their own main examinations for certification. Otherwise, what is the need for provision for reevaluation of scripts and entrance examinations for admissions? In sum, the system of entrance examination is wasteful, inequitable and has unhealthy impact on academic activity.

What is needed is not a system of additional tests but the overall restructuring of the educational system, improvement of school education in the backdrop of abstinence on the part of politicians with regard to interference in appointments, transfer of teachers, and adequate set of incentives/disincentives for teachers to perform well. We have tinkered with the educational system too frequently for too long without having a proper long term perspective and commitment. The frequent whimsical introductions and withdrawals of half-baked examination reforms have done a lot of damage to the credibility of the system inherited from the British. Uptil now, the British have managed admissions to higher education without entrance tests. The selection is on the basis of performance in pre university examinations conducted by universities whose creditability the British have fully maintained.

Understandably, Indian university teacher's job has lost its sheen over the time. He is himself largely responsible for his paradoxical and pitiable condition, first by his reluctance to relate his activity to broad societal goals, then by submitting his fortune to the cult of crass trade unionism.¹ He is no more the revered *Guru*. The teaching-learning process has become unwittingly the tool of control and domination of students. The design of syllabi, evaluation system (model question papers, spot marking, reevaluation, etc.) are geared to inhibit student initiative, guided self study and consequently to thwart the further development of a student's potential. It is nothing short of the manifestation of 'micro-fascism' in Michael Foucault's sense of the word. In

turn, teacher gets subjected to the manipulations of the authorities. No wonder, many among the teachers are stung by the 'administration' bug. Our universities are not what they should be. The entrance examinations are symptomatic of their fall from grace.¹ Teachers are duty bound to salvage the situation by initiating dialogue first among themselves and then with the society at large.

In sum, the public examinations for certification have lost their credibility over the years. The certificates issued by the various examining bodies are not considered a reliable basis for selection to employment or admission to higher education. Instead of removing the fundamental causes of failure of the system, entrance examinations have been introduced without proper discussion as to their possible adverse effects. Paradoxically, these examinations are in most cases conducted by the same examining bodies that have already lost credibility in the field. Their efficiency as a rational procedure for selecting candidates with right aptitudes for different courses is in serious doubt. Then there is also the issue of malpractices associated with the conduct of these examinations. In any case, the system of selection, as it works, tends to discriminate against the candidates from the deprived sections of the society not protected by reservations, the long term consequences of which are not difficult to perceive. This procedure of selection is *sans* credibility, is inefficient and unjust.

What is needed is not a system of additional examinations but the overall restructuring of the educational system and qualitative improvement of the school education. The cruciality of teachers' role in bringing this change can hardly be overstated. They shall have to rise above trade unionism to salvage the situation by initiating a dialogue first among themselves and then with the society at large.

Note

1. Recently, at a meeting of the teachers of a university, a teacher who also happens to be looking after university examinations made an earnest plea to his colleagues that they should give an undertaking to give undue favour to each other's wards to ensure their success in entrance tests. This indicates the degree to which the educational system has decayed. No wonder, the common man has lost his faith in the system.

The Categorization of Medical Colleges

G.G. Christo*
PLNG Rao*

Each summer, some of the best and brightest of school leaving teenagers anxiously scan the newspapers for advertisements and notices calling for applications to medical colleges. With near perfect scores in physics, chemistry and biology and fine-tuned by a tutorial course, these precocious adolescents will spend the holidays taking entrance examinations. Unfortunately for them, there is very little information available about the medical colleges they aspire to enter. Medical college prospectuses are slim and meagre publications, offering only a scanty description of facilities, faculty and academic programmes.

There is a wide disparity in the quality of medical colleges which range from the abysmal to the top-notch. Among the 147 medical colleges in India, 124 are recognised by the Medical Council of India.¹ Even among the recognized colleges certain indicators reflect the marked difference between the good and the mediocre. A study published in 1991 ranked 128 medical institutions by their research publications.² The top ten colleges annually published 25-237 research papers in internationally indexed journals. But 41 colleges published less than one a year, including seven which had no publications at all between 1980-88.

Apart from providing prospective students with information, the ranking or categorization of medical colleges would provide other benefits as well. Firstly, it would provide an ongoing evaluation of a college's facilities, faculty strength and quality of academic programmes. Secondly, it would be useful in providing data to determine the unit cost of education and thereby aid in the fixation of fees. Thirdly, it would provide a mechanism for the allotment of grants. These benefits would provide the incentive for a medical college to improve its standards so that it can move into a higher category.

Universities and colleges in the USA are ranked annually by the government and independent

*Manipal Academy of Higher Education, Madhav Nagar, Manipal-576 119

agencies. Speciality schools, such as medical and engineering colleges, also have ranking systems. Perhaps the most relied upon survey in the USA is the annual feature in *US News & World Report* entitled "America's Best Colleges".³ This comprehensive database ranks 1500 institutions of higher education based on several factors: quality of freshman (i.e. high school marks), acceptance rate, percentage of faculty with doctoral degrees, student faculty ratio, quality of graduates and alumni contributions.

A mechanism to rank universities in India is being formulated. The National Assessment and Accreditation Council (NAAC) was set up recently. According to Prof K B. Powar, Secretary General of the Association of Indian Universities, this mechanism will provide "a quality assurance system, an ISI mark in tertiary education".⁴

It might be judicious to steer away from ranking of medical colleges in India. It may not be fair to compare a state government medical college struggling on a small grant with a central government institution enjoying the largesse of New Delhi. A ranking system that exposes the gross deficiencies of government medical colleges might invite a political backlash. At the present, government medical colleges are never refused recognition by the Medical Council of India, (MCI) a statutory body set up by the government.

Criteria for Categorization

Categorizing medical colleges instead of ranking them would perhaps be more prudent and useful. This could be accomplished by considering student admissions, academic programmes, teaching hospital facilities and financial aspects. Based on these criteria, medical institutions can be grouped into four categories: A, B, C & D.

Student Admissions

The modus of selection, the composition of the applicant pool and the ability to attract foreign students are the prime variables in the admission pro-

cess. For the premier medical colleges having their own entrance examinations at multiple centres is a necessity because of the thousands of hopefuls who wish to enter a prestigious institution. Admissions to these institutions are generally on an All India basis, but there are some reserved seats for SC/STs in the government medical colleges and for minority students in the church-operated and other minority institutions.

A substantial number of foreign students apply to the self-financing private institutions. A few are admitted to central government institutions on government scholarships. Most foreign students come from Asian and African countries such as Malaysia, Sri Lanka, the Middle East, South Africa, etc where opportunities for a medical education are limited. Many non-resident Indians (NRIs) especially in North America and the Middle East prefer to send their children to India for a professional education. Because of their economic capacity foreign students seek admission to the best medical colleges

On the basis of the character of student admissions medical colleges can be grouped as in Table 1.

Academic Programmes

The range of courses, extent of research activity and the quality of support facilities varies considerably among medical colleges. Category A colleges will have higher speciality training such as DM and MCh and degree courses in paramedical disciplines. Commitment to research is manifested in specialised research labs and substantial publications. Support facilities for academic and research are well developed. (Table 2)

Teaching Hospital

To a large extent, the quality of a medical college is determined by the quality of the clinical teaching facilities. The best private medical colleges operate their own highly specialized tertiary care hospitals. In addition to the main specialities, these hospitals will have sophisticated care units for cancer, burns, fertility, etc. Diagnostic services and pa-

Table 1 Categorization of medical colleges by student admissions

<i>Entrance exam</i>	<i>Applicant pool</i>	<i>Foreign student applicants</i>
A. Own entrance exam	all-India	many foreign students
B. Govt entrance exam	partly all-India	few foreign students
C. Govt entrance exam	state	no foreign students
D. Govt entrance exam or none	state	no foreign students

Table 2 : Categorization of medical colleges by academic programmes

<i>Levels of courses</i>	<i>Research</i>	<i>Support facilities</i>
A undergraduate postgraduate higher speciality allied health	research labs PhD programmes external grants substantial publications conferences	library:computerized services literature search international journals back volumes medical education department diagnostic labs International affiliations
B undergraduate postgraduate	departmental research some publications some grants	library:some international journals medical education department diagnostic labs
C undergraduate	minimal research and publications	library: minimal facilities
D undergraduate	minimal research and publications	library: minimal facilities

tient amenities are also highly developed. Based on the facilities of the teaching hospitals, medical colleges can be grouped as in Table 3.

Financial Aspects

Three important variables contribute substantially to the balance sheet of medical colleges (Table 4). Firstly whether a college is self-financed or receives government grants. The church-operated colleges drawn on grants from the sponsoring churches. Most of the other private colleges are tuition driven.

The second factor is faculty compensation. Private colleges which operate their own hospitals generally have full time faculty on UGC scale salaries who are not permitted private practice. Some of the central government institutions are in this category. For these colleges, the salary expenditure is high. Some private colleges utilize government hospitals for clinical teaching. For these institutions and the state government medical colleges, the salary bur-

den is much lower since the faculty are either on state government pay scales or draw an honorarium and are permitted private practice.

The third variable is the ownership of the teaching hospital. Private teaching hospitals have more facilities than government hospitals. At the same time they cannot charge high fees as this will lead to a fall in patient numbers and reduce the quality of clinical teaching. So the combination of costly facilities and low revenues from patients add a considerable financial burden to these medical colleges. The Ferguson report⁵ considered 50% as a normal recovery of expenditure in private teaching hospitals.

The same report derived the unit cost of education (per student per year) based on the above three criteria.

Other Criteria

In addition to the above four key areas certain

(Contd. on page 12)

Table 3 : Categorization of medical colleges by hospital facilities

<i>Level of clinical services</i>	<i>Special centres</i>	<i>Diagnostics</i>	<i>Patient amenities</i>
A. tertiary multispeciality	cancer, burns transplant, prosthetics	CT, MRI, cardiac cath, endoscopy labs . clinical biochemistry, virology	private wards health insurance dietary section
B multispeciality	none	ultrasound specialized x'ray	private wards
C. few specialities	none	standard x'ray and labs	semi-private wards
D. general	none	minimal x'ray and labs	no private wards

Table 4 : Categorization of medical colleges by financial aspects

<i>Financing</i>	<i>Faculty salary</i>	<i>Hospital ownership</i>	<i>Annual cost per student</i>
A. Self-financing no govt. subsidy	full time UGC scales	private	Rs. 2.25 lakhs
B. Self-financing no govt. subsidy	full time UGC scales	mostly private	Rs. 1.75 lakhs
C. Subsidized	honorary state govt. scales	mostly govt	Rs. 1.25-1.50 lakhs
D. Subsidized	honorary state govt. scales	government	Rs. 0.75-1.00 lakh

Distance Education Through Video Conferencing

Devesh Kishore*

The Indira Gandhi National Open University (IGNOU) has been established to provide access to higher education to large segment of population, primarily to the disadvantaged groups living in remote and rural areas, working people, housewives and other adults who wish to upgrade or acquire knowledge and sharpen their skills. The IGNOU has established 250 study centres all over India where students can participate in the counselling sessions related to their area of studies. There has been a long felt need of interacting with the eminent speakers, professors and guest faculty members at the time of teaching-learning process. The satellite based video conferencing system provides an excellent opportunity to individuals to interact with the speakers at the teaching end and get their doubts clarified. The counsellors also get an opportunity to interact with the eminent speakers and upgrade their knowledge and sharpen their skills. Besides these realities there are some special feature of teleconferencing specifically suited to distance education. These are :

- * Teleconferencing humanises education at a distance creating an environment which focusses on the importance of individuals and thus overcomes distances by establishing rapport among them;
- * Spontaneous interaction between the participants, i.e. two-way communication is taken care of,
- * It ensures that the message gets through, i.e. it is properly received, understood and assimilated;
- * Both the sender and the receiver get immediate feedback about the messages which are being exchanged. It helps the participants remove their misunderstanding and doubts

In any educational system, the interaction between the learner and the teacher plays an important role in making the teaching-learning process effective. In distance education, the interactive process becomes difficult as the students are located in various parts of the country. The only approach

available is to have contact with them through mass media. Presently in India, the mass media are able to give them information but they do not provide an opportunity for collecting their feedback for interaction with the speakers. In addition to the students located all over the country to have interaction with the faculty located at teaching-end at New Delhi.

The interactive video system provides an excellent opportunity to the counsellors. This cuts down lot of expenditure on training of the counsellors.

The Directors of regional centres, academics located at the study centres and other staff members of IGNOU are also able to establish direct link with the various officials of the university to sort out various problems in the area of administration, finance and arrange for better arrangements for distribution of materials for students.

Satellite Based Interactive Network System

IGNOU has established basically a system which consists of one way video and two way audio teleconferencing network. It has also been called by several names like "Talkback Network", "Interactive Television Network" or "Interactive Narrow-castings". There are three basic components in the system. These are :

- 1 The teaching end (studio and 'uplink' earth station);
2. The receiving end (the class room/conference hall); and
- 3 The space craft.

The teaching end is basically responsible for originating the instructional materials either in the form of "live" lectures, recorded video programmes, group discussions, etc and uplinking these video signals to a geostationary communication satellite by means of "uplink earth station" which is located at the teaching-end. The teaching end in addition to all the studio equipments also has facilities like telephone lines, teaching aids and fax.

The satellite receives, amplifies, retransmits these signals which are received at the receiving end (class room/conference hall) within the coverage area by means of a Direct Reception System (DRS)—a perforated dish antenna of 8-12' diame-

*Director, Communication Division, IGNOU,
52, Tughlakabad Instt. Area, New Delhi-110 062.

ter, front-end electronics and an ordinary television receiver. The 'uplink' earth station has been stationed at IGNOU campus and is presently being operated and maintained by Indian Space Research Organisation (ISRO).

The receiving-ends have been provided with dish and an ordinary television set. The programmes are viewed by the students, target audience and the counsellors. The receiving ends have also been provided with Subscribers Trunks Dialling (STD) facility so that interacting with the teaching-end is possible. This can also be done through a small satellite communication terminal located at the receiving-end which can transmit the processed audio signals via satellite to the teaching end where these are received and processed. Facilities for reception of such satcom signals are provided at the teaching end. Classrooms where such interactive facilities are provided are known as "talk back" locations. At the receiving ends, whenever calls are made to clarify doubts or to interact with the speakers these are received by a small EPABX located at the teaching end. The teaching-ends are maintained by IGNOU. Some of the receiving ends have been provided with STD facilities and these are known as "talkback location". Other receiving-ends which have not been provided with STD facility are known as "receive only locations". These locations are not able to interact with the teaching end due to non-availability of the STD facilities. The number of "talk back locations" in a system are limited by the systems capacity to receive simultaneously and process questions from various 'talkback' locations. There can be thousands of receiving ends if they have the dish antenna and television sets available. If one dish is installed, we can have a number of connections with the study centres within a radius of 15-20 miles.

The 'teaching-end' is linked up with 'receiving-ends' with the help of 'uplink-earth' station in the forward direction for transmission and in the reverse direction for routed calls received from satcom talkback locations to the studio.

The receiving-ends telephone calls are received at the teaching end and are fed to the expert panel through an 'anchor' person. The calls are received in audio control room at the teaching end and are diverted to the anchor person who puts it to the members of the expert panel to answer or explain the point of view. Specially designed procedure for putting the telephone calls on "hold" and feeding them sequentially to the expert panel (one at a

time) has been developed. The 'anchor' person at the teaching end conducts interactive sessions. The questions are answered using audio-video mode. The visual images from the teaching end can go at the receiving end but vice versa is not true. The visual images and audio signals generated at the teaching end are transmitted by the uplink earth station and received at the receiving ends which are equipped with dish antennas.

At the receiving end, questions, remarks, suggestions can also be communicated through fax in addition to the voice which is carried through STD lines from receiving end to teaching end. Our observations have been that sending the questions through fax is more systematic & convenient. This also provides an opportunity for the members of the expert panel to answer questions received from fax in the off-line mode i.e. through mail or other means if the satellite time is not sufficient for this purpose.

The Department of Space has provided one extended "C" Band transponder on INSAT-IIB system. The teaching end and receiving end have been established by IGNOU. If any other educational organisation is interested to receive audio video signals or to participate in tele conferencing, they may have to put up their own dish antennas, television sets and STD lines for interaction.

IGNOU has established TV broadcast facility equipped with audio-video aids which have been linked through cable with the Transportable Remote Area Communication Terminal (TRACT) of Space Application Centre (SAC) of Indian Space Research Organisation (ISRO), parked at IGNOU campus to provide uplink as well as down link through the INSAT 2B satellite. IGNOU has also established 22 receiving ends all over India with the facilities of extended 'C' Band receiver terminals to receive the television signals and STD telephone lines at sixteen IGNOU regional centres for feedback.

IGNOU has been conducting tele conferencing for the following target groups:

1. Students of various courses/programmes registered with IGNOU.
2. Counsellors handling counselling sessions for various programmes at study centres; and
3. Regional Directors, Asstt. Regional Directors and staff members of IGNOU.

Communication Division of IGNOU coordinates the tele conferencing programmes. The Schools/Divisions work out detailed programmes/

schedules for the target audience. The programmes are conducted through panel discussions, live lectures, question-answers, audio video presentations supplemented by computer based graphics, charts, models and a few audio aids. The anchor persons coordinate these programmes in the tele conferencing studio. They provide assistance to the speakers, experts and to the persons asking questions or various receiving ends for effective interaction.

The feedback received during tele conferencing from the participants of each programme reveals that this is a powerful system for establishing interaction between the speakers and the receivers who are distantly located. The majority of participants have reacted positively to almost all the programmes mainly due to the reason that the speakers have organised their thoughts, prepared

audio-video aids and provided an opportunity to the receivers to clarify their doubts and ask questions. The study conducted by the author along with Dr. Arvind Sinha of ISRO clearly reveals that the participants found the tele conferencing an important and effective tool for the distance education. The system has also proved very effective in holding the tele conferences with the administrative staff located at various regional centres.

IGNOU has been allowing educational institutions and organisations to use this facility for various purposes such as training, group discussions, etc. on a nominal fee. Most of these organisations have found tele conferencing an extremely useful system for imparting knowledge, effecting a change in attitudes and sharpening skills of the participants located at distant places.

The Categorization of Medical Colleges

(Contd from page 9)

other criteria could be evaluated for the categorization of medical colleges into the four groups :

- a. The mission, goals and objectives of an institution are a useful yardstick to evaluate its functioning.
- b. Continuing academic development such as new courses, innovative methodology of teaching, faculty development, research initiatives, collaborative programmes with universities abroad, consultancies and organization of scientific conferences must be given weightage.
- c. Management information systems—the development of administrative, financial, academic, medical, clinical and research databases is indispensable to bringing efficiency of operations to optimal levels.
- d. Cost-efficiency indicators such as percentage of total budget for academic purposes, proportion of budget for administrative and salary costs, expenditure on student amenities, allocations for research should be given consideration.

Implementation Process

The Medical Council of India lacks sufficient infrastructure and resources. Furthermore it needs to assert its status as an autonomous statutory body and provide the needed leadership to modernize the accreditation system. The Medical Council of India must take the initiative. The present system of accreditation needs to be modified so that

a wider range of inputs are included. The relative weightage for various evaluation criteria must be worked out. Uniform systems of financial accounting, student and faculty evaluation should be drawn up so that the comparison of performance indicators among institution will be reliable.

To begin with, the process of categorization can be voluntary. The element of self-evaluation is important because it is the first step towards self-regulation and self-improvement. Each medical college can fill out a proforma that is based on established standards. The next step of inspection should be a joint exercise between representatives of the MCI, peer reviewers from other medical colleges and the host institution itself.

Finally, there should be periodic publication of a list of institutions that meet the acceptable levels of standards. Evaluation of the laid-down performance criteria should be an ongoing exercise so that a continuum of improving standards is maintained.

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Science, Spirituality & Education

Hon'ble Dr. Manmohan Singh, Union Finance Minister, Government of India, delivered the Convocation Address at the fourteenth annual convocation of Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam. He said, "In bringing about a new synthesis of science and spirituality and building a new universal empire of the spirit, the role of education is of critical importance. Our education needs to be inspired by a value system which prizes commitment to the simultaneous pursuit of excellence and social equity, celebration of pluralism and diversity, and acceptance of limits on space and desire in a world with finite resources. Excerpts.

Sri Sathya Sai Institute of Higher Learning with its emphasis on integral education which leads the student to strive for perfection in the physical, intellectual, emotional, psychic and spiritual facets of his or her personality is truly a unique university.

Ancient Greek and Indian thought considered the human individual as a replica of the universe and the human self being a trinity of body, mind and spirit. Education which is a means of transforming society has to pay equal attention to all the three aspects of human personality. Thus in his emphasis on education, the Greek philosopher Plato laid particular emphasis on the role of education to train the character and the mind, through both moral and intellectual training. In Plato's scheme of things, physical and intellectual education are not concerned to deal one with the body and one with the mind, but as in Yoga, both are jointly directed to the training of character. Both Plato and the ancient Indian wisdom stressed that the aim of the teacher is not to put into the mind knowledge that was not there before—though this is necessary—but to turn the mind's eye to the light so that it can see

for itself. The teacher's role therefore is not to stick thoughts into his or her pupils' head but to make them think for themselves in their quest for self-realization and social harmony. The pupil is not a passive recipient of knowledge but must grasp the truth for himself and discover the spirit of the universe and its purpose. (Plato: *The Republic*, Translated with an introduction by H.D.P. Lee, Penguin Books).

The concept of integral education which is a divine gift of Bhagavan Baba to this institute comes closest to these ancient ideals. Blessed indeed are the students who have had the privilege of going through an educational programme which combines a deep appreciation of the method of modern science and technology and the ancient Indian knowledge and wisdom accumulated over the centuries. This type of education can be a powerful means of self-perfection and social redemption.

I offer my heartiest congratulations to those students who, after a diligent pursuit of their studies, have earned their degrees and diplomas. May their path be blessed. Under the direction and

guidance of Bhagavan Baba, they have gone through a holistic programme of education with its emphasis on the ideals of *Sathya*, *Dharma*, *Shanthi*, *Prema* and *Ahimsa* in the contemporary setting. These are the very ideals which India and the world need to live up to so as to build a new commonwealth of brotherhood and a world order free from the fear of war, want and exploitation.

We are living in a world of unprecedented change. Human knowledge particularly scientific and technological knowledge, is increasing at a pace which was unthinkable only a few decades ago. The advance of science and technology is in turn forcing social, economic and political institutions everywhere to adjust and adapt to the fast changing environmental conditions. Advances in the sphere of transport, communication and information technologies are fast creating an increasingly interdependent global economy. At the same time, unequal access to science and technology is leading to a widening of disparities in income and wealth between rich and poor nations.

Properly harnessed, advances in science and technology (particularly the bio-technology, information and health care technologies) make it possible as never before in human history to ensure that chronic poverty, ignorance and disease can be eradicated. Technical progress helps to reduce the drudgery of human life and it can provide human beings more time for leisure and pursuit of culture and arts. Technology has greatly contributed to democratisation of the enjoyment of leisure.

However, there is a darker

side to the modern technology-intensive economy. For one thing, the sheer rapidity of technological problems make the modern world, for all its technological marvels, an uncomfortable and an unfulfilling place to live. As Robert Wright in a recent article entitled 'The Evolution of Despair' published in the *Time Magazine* (August 28, 1995) has pointed out, rates of depression have been doubling in some industrial countries every ten years. Suicide is the third most common cause of death among young adults in North America, after car accidents and homicides. Wright goes on to assert that pathological alienation is a hallmark of advanced countries. The new technologies and their products such as cars, refrigerators, television and suburbia are creating a growing feeling of social isolation and erosion of bonds of neighbourly interdependence. The advertisement driven irresistible pressure for more and more consumer goods is contributing to the break up of the family system, neglect of children and older people and increased mental stress among women who have to combine their maternal responsibilities and earning a living. The modern acquisitive society often prevents human beings from cultivating the warm, affiliative side of human nature. Furthermore, the ever increasing demand for more and more material goods and services now poses a serious threat to the environment and ecological stability of our planet. Additionally, since the capacity for the production of new scientific and technological knowledge is unevenly distributed among the nations of the world, the worsening inequalities of income, wealth and power strengthen the trend

towards growing domination of the world economy by a few highly developed countries, notwithstanding the demise of old fashioned colonialism.

The last few years have seen major changes in international relations. What was unthinkable only a decade ago has now become a reality. The cold war has ended. The forces of State Absolutism represented by communism have suffered a major defeat in Eastern Europe and the erstwhile USSR. The apartheid regime in South Africa has given place to a multi-racial democracy. Many regional conflicts are being resolved. Yet neither peace nor democracy is as secure as is sometimes assumed. With the end of the cold war, traditional economic rivalries among the major developed countries threaten to unleash ugly trade wars. Communism may have been defeated but the quest for social justice cannot be wished away. Ethnicity and sub-regional nationalism pose new challenges to national unity and cohesion in several countries. The expected peace dividend from the melting of the cold war and disarmament has not materialised. The sheer rapidity of change is breeding new feelings of uncertainty and insecurity among the people. There is an increasing distrust of government as they fail to meet the rising aspirations of their people. The march of science and technology should normally weaken the forces of obscurantism and dogmatism. However, the growing feelings of insecurity, uncertainty and deprivation are encouraging the rise of religious fundamentalism of a perverse kind which claims an exclusive monopoly of knowledge and wisdom and emphasises uniformity rather

than harmony. There is a spiritual vacuum. The world is highly dissatisfied with the existing order. Yet the new order is still to be born.

What are the implications of all these developments for the future of our country? As I see it, we cannot disown the use of modern science and technology to improve the human condition. Indeed, without purposeful use of modern science and technology we cannot get rid of the chronic poverty, ignorance and disease which still afflict millions of people in our country. We have to modernise both our agriculture and industry. We need a strong economy to enable us to play a meaningful role in the management of the evolving global interdependence. We need an internationally competitive economy which will enable us to meet all our import requirements through exports. We need the help of science and technology to evolve environmentally sound and sustainable strategies for livelihood of our vast population

But in doing so we must evolve patterns of economic and social organisation and human behaviour which do not breed social isolation or alienation. There ought to be maximum possible decentralisation of power and encouragement of community action. The challenge is to make full use of modern science and technology to meet the basic human needs of our people rather than to promote life styles and patterns of consumption which are a carbon copy of the life styles of the post-industrial societies of the West. The new technologies ought to be used as instruments of empowering the poorer sections of our population to realize

their latent development potential and to participate in the mainstream of the economy.

Simultaneously, through appropriate institutional reforms and the cultivation of mind and spirit, we have to evolve a design and style of living which do not breed loneliness, boredom, depression and social isolation characteristic of the technology driven societies of the West.

Thus we have to combine the use of science and technology with a new spiritual awakening so that increased material well being and leisure are not wasted in costly excitements catering to the needs of the body but become the important means to rekindle the higher impulses both for self-perfection and social cohesion based on the dignity of the individual human being, compassion, tolerance, gentleness, truthfulness and non-violence. If successfully accomplished, this mission might enable India to make a powerful contribution to the evolution of a truly universal human civilization of the future based on both reason and morality, a synthesis of science and spirituality.

As I see it, there is no contradiction between science and spirituality, indeed it can be argued that the two are complementary, science gives us a new vision of the unknown. But it is not inconsistent with the existence of an ultimate spiritual reality and an eternal purpose behind the cosmic process. One does not need to point to numerous scientists from Newton to Einstein who were deeply spiritual men to substantiate this point, for that may be purely coincidental. I wish instead to suggest a deeper relationship between these as tempera-

ments.

By science infact what we mean is the scientific temperament and not simply the particular technological products of a particular time and age. The scientific temperament, or scientific method, as it is more commonly known, is the replacement of almost every kind of authority by individual reason. Nothing is too sacrosanct to be questioned by the inquiring mind, everything is open to question, discussion and public scrutiny. Every step requires justification and transparency. Science is not infallible, seems to be the presupposition of this method of inquiry, indeed, it is the very fallibility of man that makes it imperative that we be as open, as non-dogmatic as possible in our attempt to understand both the nature of the world as well as our own selves. Science is thus opposed to dogma and to superstition which is the unreflective transmission of dogmas.

Spirituality is a refined or higher state of the mind, it is really one of the resources of consciousness, it is an ability we human beings have, whether we use it or not. Human beings can view themselves and their own actions from the outside as it were by stepping aside. One way of characterising such an ability is "self-consciousness". To be a spiritual person is not to have a particular belief in one or another god, it is the ability to transcend oneself, to see oneself, as the philosopher Spinoza put it, "sub species aeternitas" (under the category of eternity). From such a perspective, the universe is just what that word suggests a uni-verse, a single connected whole, of which the individual consciousness is its one subjective aspect.

Now Science or the scientific temperament does not, indeed it cannot, contest such a perspective because in many ways it shares it. The recognition of the interdependence of Nature's explosive diversity has now become an ecological truism. At the level of pure matter, the expanding universe has at its beginning but a single source.

Despite their impressive gains, the human sciences are far from having exhausted their potential. Newton modestly and poetically likened himself to a child collecting shells before the great ocean of being. What is spirituality except the awareness of ourselves in the face of the infinite?

In bringing about a new synthesis of science and spirituality and building a new universal empire of the spirit, the role of education is of critical importance. Our education needs to be inspired by a value system which prizes commitment to the simultaneous pursuit of excellence and social equity, celebration of pluralism and diversity, and acceptance of limits on space and desire in a world with finite resources. We need entrepreneurs who regard themselves as trustees of society and who pursue the goal of creating more wealth more as a social obligation to fulfil the national commitment for the removal of poverty and not merely for the sake of personal enjoyment. We need professional managers who are intellectually alert, operate on the frontiers of knowledge and are socially involved. For our democracy to succeed in the gigantic task of removal of mass poverty and for social and moral regeneration of our people, we need enlightened citizens and

dedicated leaders of public opinion. We need political leaders who view politics not as merely a ticket for power for purposes of self-aggrandisement but as a purposeful instrument of social change. We need enlightened citizens who refuse to be swayed by appeals to narrow sectional, communal or caste prejudices and who recognise that the only way to govern India firmly and fairly is through tolerance and respect for diversity and democratic pluralism.

As I look around, the contemporary Indian scene is full of daunting challenges. Our country has made significant all round progress since independence. However, the pace of progress has fallen far short of the aspirations of our people. Millions of people still continue to live in abject poverty. Nearly 47 per cent of our population is still illiterate. The infant mortality rate is as high as 70 per 1000 live births. The gap between villages and towns is much wider today than it was at the time of independence.

Fortunately, there is now a growing national awareness and consensus that we must reorient our development strategies for meeting the basic human needs of our people. Since 70 per cent of our people live in rural areas, the primacy of agriculture, rural development and human resource development can be hardly over emphasised. The economic policies being followed by our government under the leadership of our Prime Minister, Sri P.V. Narasimha Rao, are inspired by this vision. Programmes of rural development and social development are being expanded and revamped.

But in a vast country of India's size and complexity, there are limitations to the effectiveness of government sponsored and government financed programmes. The task is truly gigantic and requires active mobilisation and participation of the people in improving their living conditions. The manner in which this once sleepy blessed village of Puttaparthi has been transformed under the divine guidance of Bhagavan Baba, the excellent medical facilities being provided free of charge by the Sri Sathya Sai Institute of Higher Medical Sciences and the recent launching of an ambitious new scheme for the supply of safe drinking water to the thousands of chronically drought prone and fluoride affected villages in Anantpur and adjoining areas of Rayalseema are shining examples of the role of committed and dedicated leadership for the regeneration of our society.

There is today much ambivalence in the political, social and economic life of our country. India has vast human resources and reservoirs of creativity, adventure and enterprise. There is growing dissatisfaction with the *status quo*. People are eager for changes which will enable them to lead a life of fulfilment. But there is too much selfishness, corruption and divisiveness in our society which threaten social cohesion and the effectiveness of national policies for reconstruction and development.

We need a new national consensus for social and economic regeneration. But the economy is not an end in itself. It is only a means to enable our people to lead a life of dignity and self-respect inspired by the humanistic values of civic morality. The task will

remain incomplete in the absence of a powerful movement for moral regeneration and spiritual awakening of our people. We need human knowledge and education which would lead not merely to assertion of mind over life and matter but, as Dr. S. Radhakrishnan has stated, to the triumph of the spirit over mind, body and life (See *Kalki: The Future of Civilization*, 1948). India has to lead the world to realize that a bond of spiritual unity links the entire humankind. There is such a thing as national pride and our thoughts and actions should lead us to take legitimate pride in being Indians. But as Jawaharlal Nehru approvingly quoted Rabindra Nath Tagore, we should never forget that the best efforts of Indian sages were directed to the abolition of disunity in the world "He who has realized the unity of man by identifying himself with the universe is free from ignorance and sorrow". (Jawaharlal Nehru's introduction to *Tagore 1861-1961, A centenary Volume*, 1961).

In our own time, Bhagavan Baba, with his emphasis on dharma, right moral conduct and the fundamental unity of human relationship, is preparing humankind for the new universal civilisation of love and brotherhood. The lamp lit by Bhagavan Baba is no ordinary lamp. I am confident that the light it emits is powerful enough to reach every nook and corner of our country and the world. It will strengthen the forces of reason, truth, love and compassion, leading to the triumph of the eternal human spirit and guide our country towards that heaven of freedom about which Rabindra Nath Tagore dreamt and wrote so passionately:

*Where the mind is without
fear and the head is held
high;
Where knowledge is free;
Where the world has not
been broken up into frag-
ments by narrow domestic
walls;
Where words come out
from the depth of truth,
Where tireless striving
stretches its arms towards
perfection;
Where the clear stream of*

*reason has not lost its way
into the dreary desert sand
of dead habit;
Where the mind is led
forward by thee into ever
widening thought and ac-
tion —
Into that heaven of free-
dom, my Father, let my
country awake.*

I conclude by invoking
Bhagavan Baba's blessings for
peace, harmony and prosperity of
our motherland.

Benedictory Address

by

**Bhagavan Sri Sathya Sai Baba
Chancellor**

Sri Sathya Sai Institute of Higher Learning

Embodiments of Love

Education lends beauty to man. It is the secret wealth. It confers wealth, name and fame. It is the teacher of teachers. It is one's relative in foreign lands. It is the third eye (eye of wisdom). In the royal courts, it is respected more than wealth. Scriptures of Bharath declare that the man bereft of education is a strange animal.

Today every thinking man can notice stupendous problems in the field of education. These are confusing and look unsurmountable. Educational institutions which should address themselves to offer solutions to these problems, have given up their sacred responsibilities.

The ideals of education are totally forgotten. The educational institutions, which should foster creative activity, have surrendered themselves to negative and destructive activity. Goddess of wealth has entered the institu-

tions of sacred learning. Students are swayed by an urge to make money by their learning instead of using knowledge to serve society. Lofty ideals of education such as character, morality, integrity and sacrifice have been given a go-by.

Students consider acquisitions of wealth, friendship, power and degrees as important. What is the use of such acquisitions without character? It would be like a school without teacher, a field without water and wire without current. No one would respect and honour education devoid of character, good conduct and culture.

Students who are born in Bharath should understand the greatness and nobility of Indian culture and practise it. Unity, integrity, good behaviour and character are the essence of Indian culture. Sacrifice, fairness and justice, righteousness, morality, integrity and character are the very basis of Indian culture.

Dear students: take a look back into ancient Indian history. There is not a single instance when Bharatiyas have invaded another country seeking political power, wealth or prosperity. Whenever other countries invaded Bharath, they have taken to arms by compulsion and resisted the aggressor. People belonging to other countries have looted the wealth of Bharath, tried to destroy the very culture of Bharath, tried to foster differences among brothers and sown the seeds of misunderstanding. Even today India is suffering because of such acts of foreigners.

Indian culture has always considered patience, as its beauty, speaking the truth as the highest type of penance, feeling of motherhood as the most sacred and sweet one. Character is more important than life itself.

There is no parallel in human history to the sacrifice made by the King Sibhi, who cut his body and offered his flesh to protect a bird, the King Harischachandra, who gave up his kingdom, wife and son for upholding truth. Such instances are galore in Indian history. Students, not realising the nobility, grandeur, greatness and uniqueness of Indian culture make fun of it and consider Indian culture as something primitive which is a great mistake. Instead they should live up to the ideals expounded and practised by the ancient Bharatiyas. They should give up the blind imitation of the West. All the problems of the day such as violence, unrighteousness, injustice, etc could be solved if people followed the sacred and noble culture of India. Indians may be compared to a mighty elephant which does not know its own strength. We

should realise our own greatness and live up to the ideals and restore to India the highest place which it occupied once.

Students, arise and awake. This is not the time for sleep. Have you not been able to see mother Bharath shedding tears of agony? The reason for her grief is that her children have given up sacred way of noble life, believing in the worldly and material life. They appear to have lost faith, in morality and integrity, which are two important wings for human life that enable it to reach the lofty heights.

What is the meaning of education? Does mere reading, writing, hearing and teaching constitute education? Can any person who knows reading and writing be called educated? Does acquiring degrees qualify a man to be called educated? Is the purpose of education earning a means of livelihood; if so, does not one find birds and beasts also living a life?

Education is not for a living, but it is for life. Spiritual knowledge and moral values are the very basis and core of education. Education should reveal truth and eternal wisdom. It should impart two types of knowledge, one, for earning means of livelihood and another, for achieving the goals of life. These two are like the negative and the positive, which are required for producing illumination and shedding light. Human life blossoms only when one combines these two types of education. Character is the end of education. Man's personality blossoms also with the development of character. Bereft of character human life does not have any value.

Morality and character have remained today confined to

books. Human heart has become dwelling place for evil qualities such as selfishness, narrow-mindedness and self-interest. Today's education fosters only cleverness and selfish intelligence. The progress achieved in today's education refers only to the increase in the number of schools and colleges and universities rather than the quality and standard of education. The government spends crores of rupees, but the results do not justify such huge expenditure.

The products of today's education are taught to harm those persons who have fostered and fed them. Today's students harm those who have helped them and they make fun of teachers who have taught them. Can this be called progress in education?

In the past Bharath gave priority to the interests and welfare of society over an individual. The Vedas have described God as having thousand heads, thousand eyes, thousand feet, which really represent the society. The interests of the society were held as very important and sacred. Guru Nanak taught congregational worship. All the ancient sages and saints of Bharath have contributed to the development of different aspects of multifaceted Bharathiya culture.

Dear students Introspect yourself, look into the working of your own thoughts and mind. Thoughts are very important in man's life. "So thinketh the man, so is the man". Thoughts are responsible for shaping the destiny of man. Money comes and goes, morality comes and grows. Money is no doubt important for human life. It is to be earned in a righteous way. Our ancestors considered righteousness as the very basis of human life, while

modern man considers money as the very foundation for life. This is one of the differences between ancient culture and modern civilisation. Our culture states *Dharma* (righteousness), *Artha* (wealth), *Kama* (Desire) and *Moksha* (Liberation) as the four goals of life. These four are paired into two viz. *Dharma* and *Artha* as one pair and *Kama* and *Moksha* as the other pair. It was held that wealth (*Artha*) should be acquired through righteous means (*Dharma*) and desire (*Kama*) should be directed towards liberation (*Moksha*). That was how our culture always gave a high place for values.

Today's life is full of tension, because we have given up righteousness. Heart is filled with negative thoughts and harmful ideas. They are responsible for the tension in life. Observing morality and spirituality in life will free man from tension. There is a need for establishing harmonious unity between worldly life and spiritual life. The student should strive to bring about such relationship between worldly life and spiritual life.

The end of culture is perfection; the end of knowledge is love; the end of education is character. People should understand the correct meaning of education, freedom and character. It is only the spiritual knowledge which can confer character, knowledge and freedom. We should strive for such education. The system of education must be based on ancient cultural values. Our country taught the whole world the eternal values which brought about welfare and security for the entire humanity.

Today no one knows what is happening in the system of education. No one is bothered to find

how the students are learning and how they are acquiring marks and degrees. Everyone appears to be highly educated person, but one does not find the proof of such education in the practical life of man. It is not enough if you have bookish knowledge. We should have practical knowledge. Whatever one has learnt must be made socially relevant and useful to society. One should practice what one professes. In the ancient days the teacher was called *Acharya* (Practitioner). A person who professes without practising, cannot be called Professor (*Acharya*). During the days of Mahabharatha, Dronacharya was a great teacher. He loved his student, Arjuna more than his own son, Aswathama. He revealed to Arjuna all the secrets of archery which he did not reveal even to his own son. That was the calibre of the teachers in the ancient days.

Today students are swayed by the attraction of money. They select a course of study keeping in view the money they would earn after education. There is a craze in students to go abroad for studies. It is a wrong tendency. Let them go to other countries for studies if there is a need, let them work in any other country but they should not forget their motherland. They should live and serve the motherland.

At the end of studies teacher in the ancient times would collect the students around him and impart to them such knowledge which would make their life in the next stage of *Grahashtasrama* happy and fulfilling. This has come to be known in the modern days as Convocation.

Today's students should develop the feeling of national fervour and patriotism. They

should not give too much of importance to money. They should pay attention to morality and righteousness. The students should work for the welfare of the society. They should keep the interest of the society and the nation upper most in their mind. There is only one caste and that is the caste of humanity, one religion and the religion of love, one God who is omnipresent. Human values should not be based on any particular religion viz. Islam, Christianity, Zoroastrianism, Buddhism or Hinduism. The real human values are based on the very fact that everyone is basically a human being. Man should know that he is the son of immortality.

Students You are born in this country of Bharath. You must be proud of being the children of Bharath. Bharath is a sacred land saturated with nobility and idealism. In the past many foreigners wanted to come and settle down in this land, but all of them could not achieve their ambition. You are lucky to be born in Bharath. You should make good use of your life and live up to the great ideals of Indian culture. You should know the greatness of history and culture of Bharath.

The name of Bharath is not derived from the name of any person. The word Bharath is derived

from Goddess Saraswathi, who has been described as Bharathi. Ignorant people attribute the name of Bharath to Bharatha, who was son of Dasaratha or Bharatha son of Sakunthala and Dushyantha. This is wrong. Another name for Bharath is Hindu. There are five letters in the word Hindu. "H" stands for humanity, "I" stands for individuality, "N" stands for nationality, "D" stands for Divinity and "U" stands for Unity. These five characteristics are considered as five life breaths of Bharatiya culture.

We should give importance to the unity and integrity of the country and work for achieving it. Morality is the very basis of life in this country. Without morality the nation would suffer dishonour and degradation.

Students should not migrate to towns and cities after their studies. They should stay back in their villages and work for their development, welfare and security. In the rural areas the income may be less, but it would be more than compensated by lower cost of living and goodness and peace.

Develop unity. Where there is Unity, there is Purity, where there is Purity, there is Divinity. Today there is no Unity, Purity and Divinity. Now there is only enmity and community. Students

Association of Indian Universities

Change of Telephone Numbers

Old Number	New Number
331 0059	323 0059
331 2305	323 2305
331 2429	323 2429
331 3390	323 3390
332 3097	323 1097
371 2435	323 2435
Fax Number 331 5105	323 6105

should raise themselves above these narrow feelings. You should never give room for evil thoughts in your hearts. Thoughts are like seeds. They would determine your destiny. Therefore do not entertain bad thoughts and bad feelings. Run away from bad company. Seek only good company. Do service day and night. That is what we have to practise today. *Students:* You should know that the time passes whether you live well or not. Man's life span melts away day by day. You should realise your duty and responsibility. You should serve the society and think about its welfare. Service of the society broadens one's heart, fosters love and develops character in students.

Arise and awake from the slumber of ignorance. Open your eyes, take to the path of sacred life and reach the goal of life. Utilise your life to remove the

grief of Mother Bharath and to wipe her tears. Foster values in your hearts and use your life to serve society.

Values are for education, and education is for life. Life is for love, love is for man. Man is for service and Service is for society. Society is for nation and nation is for the world and the world is for Peace. Thus 'values' are very important for establishing 'peace' in the world. You should have a strong determination and will to achieve the goal of life. You should take strong resolution to develop your own villages to uphold the human values and the culture of Bharath. I wish that you should live a good, useful, ideal and fulfilling life. You should establish peace and prosperity in the country. You should develop and foster spirituality and morality.

Excerpts from the Introductory Address

by

**K. Hanumanthappa
Vice-Chancellor**

Sri Sathya Sai Institute of Higher Learning

Our Convocation is always one day ahead of the Birthday of Revered Chancellor and this year being the Seventieth Birthday of Bhagavan Sri Sathya Sai Baba, hundreds of thousands of loving devotees from countries the world over have gathered at Prasanthi Nilayam to participate in the Birthday celebrations and this mini world is now present at the Hill View Stadium to witness a Convocation presided over by Revered Chancellor, which is a marvel and is of its own type in the annals of the history of University Convocations held

around the world, as nowhere a Convocation of this magnitude has been held, where people from the world around are present and it is here where Unity in Diversity can be seen in real practice.

This day we have entered into the fifteenth year in the life of this University. The Fourteen years have been momentous and full of achievements. We will continue to intensify more and more of our efforts under the benign guidance of our Revered Chancellor so that the students, teachers and all those associated with the Deemed

University go on playing their role in such a manner that the loving product of the Institute i.e., the students — the boys and girls — on leaving the portals of their Alma Mater — plunge into the service of society thereby not only to feel the joy of service but also contribute joy and happiness around.

The Institute's central objective is to impart a form of learning that is described as Integral Education, which helps a student in the pursuit of knowledge, inculcation of the traits of Duty and Devotion and the virtues of the simple living, together with a cultivation of a sense of unity with all fellow-beings i.e., National Integration. The Institute has adopted an Open Admission Policy and Education is free to all students from K.G. to P.G. level.

The Institute has a Course on 'Awareness' and 'Integral Items' as its distinctive features. The "Awareness Course" is for all the U.G. and P.G. students, which has in its programmes — the life, mission and teachings of Bhagavan Baba, Unity in Diversity — binding all the faiths; lives and works of great Seers and Thinkers. The "Integral Items" consist of Yoga practice; games and sports; prayer and meditation; social service and self-reliance programmes. There is continuous evaluation in these items.

The Institute has undergraduate courses, postgraduate courses and also Ph.D. Programmes in Arts, Science, Commerce and Management faculties. In addition to M.B.A. Programme, the Institute has also M.F.M. (Master of Financial Management); M. Tech (Computer Science) and M. Tech (Applied Optics).

Research work in thrust areas is going on as usual with enthusi-

asm. The research problems undertaken have been of local and national relevance. Research articles written by faculty and research scholars find place in the professional journals of national and international repute.

The Institute's Annual Cultural and Sports Meet was held in January 1995 presided over by the Revered Chancellor

Before the start of the new session this year, fifteen days Summer Course on "Indian Culture and Spirituality" was held for all the students of the three Campuses. In addition to His Inaugural and Valedictory Addresses, Revered Chancellor gave His inspiring Addresses on each day of the Summer Course

Distinguished academicians in various areas were invited to share their knowledge and experience with students and faculty members. During the year, Orientation programmes, refresher courses, workshops and seminars were conducted for the benefit of the teachers concerned.

On the occasion of the Inauguration of the Sri Sathya Sai Institute of Higher Learning on November 22, 1981, 14 years ago, Revered Chancellor, Bhagavan Sri Sathya Sai Baba referring to the role that his students have to play. He said:

"Students are the very foundation of the nation. To make the foundation strong, the people, the government, the parents, the teachers and the students all have to co-ordinate their plans and efforts. These five elements, these five vital forces have to work together towards this end"

"Students and teachers are the most valuable asset which can render the University an ideal one. Along with subjects related

to worldly knowledge, this University will impart instruction in ethical, moral and spiritual codes and sadhanas. It has its goal the cultivation of the student's mind on these lines. Virtues, purity of the mind, adherence to truth, dedication to the Supreme, discipline and devotion to duty — these qualities will be fostered in this university"

"This is the inaugural day of our Institute. It has been planted today. The students are the roots. The tree will grow with branches on all sides, countless flowers will bloom."

This is in nutshell the central philosophy of education at the Sri Sathya Sai Institute of Higher Learning.



Kota Open University

कोटा खुला विश्वविद्यालय, कोटा

रावतभाटा रोड, कोटा

कनांक : एक-2/कोसुवि/स्था/अरौ/43(1)/95/13552

दिनांक : 27-12-95

विज्ञापन सं. 4/रौ/अरौ/95

विश्वविद्यालय में निम्नलिखित पदों को भरे जाने हेतु आवेदन-पत्र आमंत्रित किये जाते हैं

क्र. सं.	पदनाम	रिक्त पद	विशेष विवरण
1	आचार्य (प्रोफेसर) (वेतन मान 4500-7300)	5 पद	अनारक्षित एक-एक पद कम्प्यूटर विज्ञान, अर्थशास्त्र, शिक्षा, प्रबन्ध एवं राजनीति शास्त्र विषयों में
2	सह-आचार्य (रीडर) (वेतन मान 3700-5700)	4 पद	1 पद अनु. जाति — इतिहास 1 पद अनु. जाति — रसायन शास्त्र 2 पद सामान्य — पुस्तकालय विज्ञान एवं भौतिक शास्त्र (एक-एक पद)
3.	सहायक आचार्य (वेतन मान 2200-4000)	3 पद	1 पद अनु. जाति — हिन्दी 1 पद सामान्य — प्रबन्ध 1 पद अनु. जाति — फूड एवं न्यूट्रीशन
4.	सचिव, कुलपति (वेतन मान 3000-4500)	1 पद	अनारक्षित
5	उप कुलसचिव (वेतन मान 3000-4500)	2 पद	एक पद अनु. जाति व एक पद सामान्य वर्ग के लिये
6	सांख्यिकी सहायक (वेतन मान 1400-2600)	1 पद	अनारक्षित

टिप्पणी :-

- 1 आवेदन पत्र विश्वविद्यालय द्वारा निर्धारित प्रपत्र में भरे जाने पर ही मान्य होंगे। निर्धारित रिक्त आवेदन प्रपत्र दिनांक 25-1-96 तक कार्यालय: कुलसचिव, कोटा खुला विश्वविद्यालय, रावतभाटा रोड, कोटा से 11/- रु. का कुलसचिव, कोटा खुला विश्वविद्यालय, कोटा के पक्ष में भारतीय पोस्टल आर्डर प्रस्तुत कर अथवा नगद भुगतान कर प्राप्त किये जा सकते हैं। यदि डाक द्वारा आवेदन-पत्र भेजवाना हो तो 21/- रु. का भारतीय पोस्टल आर्डर जो कुलसचिव के पक्ष में देय हो, भिजवायें। पूर्ण आवेदन-पत्र दिनांक 31-1-96 तक इस कार्यालय में जमा कराये जा सकते हैं।
- 2 जो व्यक्ति पूर्व में ही सेवारत हैं वे अपने आवेदन-पत्र सक्षम अधिकारी से अग्रेषित करवा कर उचित माध्यम से ही भिजवायें।
- 3 सेवा निवृत्त व्यक्ति कृपया आवेदन न करें।
- 4 इस विश्वविद्यालय के विज्ञापन सं. 3/अरौ/रौ/95 दिनांक 3-6-95 के अनुसरण में जिन व्यक्तियों ने आवेदन कर रखा है, उन्हें नये आवेदन भेजने की आवश्यकता नहीं है। उनके पूर्व आवेदन ही विचारार्थ स्वीकार किये जायेंगे किन्तु यदि अभ्यर्थियों ने अतिरिक्त शैक्षणिक/अन्य योग्यताएँ इस बीच अर्जित कर ली हैं तो इसकी सूचना पूर्व-आवेदन का सन्दर्भ देते हुए प्रस्तुत कर सकते हैं।
- 5 निर्धारित शर्तों एवं योग्यता/पात्रता का विवरण रिक्त आवेदन-प्रपत्र के साथ उपलब्ध करवाया जाएगा।

कुलसचिव

Professional Development of Teachers

A UGC workshop on Professional development of teachers in autonomous colleges, was recently held at the Women's Christian College (WCC) in Madras. Inaugurating the workshop Dr. S.V. Chittibabu, Vice-Chairman, Tamil Nadu State Council for Higher Education, acknowledged the lack of co-ordination between universities and autonomous colleges which did not enable discussions and exchange of ideas. He urged the teaching fraternity to work with conviction.

Conceding that the affiliated system to be 'oppressive and repressive', the response to autonomy had been lukewarm from universities and colleges alike, he said. The response from teachers was not very encouraging due to the unionisation of faculty as extra commitments were not encouraged, while some resisted the credit system of evaluation. The universities insisted on following a 'straight jacket' approach as drafting new syllabi were fettered by university regulations.

Calling for accountability and discipline in autonomous colleges, Mr. Chittibabu said discipline did not mean regimentation. The autonomous college should exude a spirit of democracy giving room for dissent.

Dr. C. T. Kurien, Emeritus Professor, Madras Institute of Development Studies, called for 'involvement' in the teaching process for it to be meaningful. Urging autonomous institutions to

rise to the challenge in spite of petty regulations, he said for education to be significant it should be combined with understanding.

Participating in the discussion, Mr. K. Gunasekaran of the Southern Region, University Grants Commission, stressed the need for orientation and training among teachers of higher education.

It was ironical that teachers of higher education continued to be unaware of the technologies and procedures to be adopted in certain situations as they had no training. This was in contrast to school teachers who were professionally trained in various methodologies, he added.

The expertise of a teacher was vital, especially in autonomous colleges as they had to adopt and reject various teaching practices after taking into account the size of the classroom and related aspects. Innovative internal assessment programmes, preparation of question banks, awarding grades and providing guidance would also come under its purview, he said.

Calling upon nearly 125 teachers from over 50 colleges in the southern region to identify the skills required for effective teaching, he said the objective was to provide training to 'all' teachers of autonomous colleges in a phased manner.

Dr. Kanmani Christian, Principal, WCC, introducing the

theme, said the meet was crucial as it set the blueprint for the ideal working of autonomous colleges.

BITS - Ashok Leyland Sign MoU

Ashok Leyland and the Birla Institute of Technology and Science (BITS), Pilani, are reported to have entered into a collaborative arrangement for the upgradation of Ashok Leyland's shop-floor personnel.

In terms of a memorandum of understanding (MoU) signed recently, BITS would offer training to selected employees in Ashok Leyland's factories. The programme, specifically drawn up for the automobile manufacturer, would enable engineers with three or four years of experience to cope with the increasing demands of engineering management.

Dr. S. Venkateswaran, Director, BITS said offering 'education at the work centre' was in tune with the demands of the industry. Citing improper recognition of mutual requirements by both industry and academia as reasons for the laxity in furthering industry-university linkages, Dr. Venkateswaran said the proposed two-year course was structured to ensure human resource development without loss of man hours.

For instance, in terms of the structured course, the candidate's superior in the factory would also perform the tasks of co-ordinating the candidate's studies. If there is an assignment to be completed, it can be merged with the work in progress. This will ensure that

those undergoing the two-year study, leading to the award of an MS degree in engineering management by the institute, are not disturbed from their jobs.'

Similar programmes were being conducted for other corporates such as SPIC, MRF and HM, in addition to the Indian Railways, he said.

Mr. J.N. Amrolia, Executive Director (Personnel), Ashok Leyland, said the initiative differed from the practice of engineers studying management in that those selected for the course were practising engineers who would be trained in various aspects of technological and engineering management.

Moreover, most of the engineers who went for study at the Indian Institutes of Management or other institutes opted for financial management or business administration, which was not conducive to addressing the issues of shop-floor management, he added.

Asked about the status of academic facilities for automobile engineers in the backdrop of the likely entry of many international players in the automobile industry into India, Mr Amrolia said there was likely to be a shortfall over the next three to four years, but this would be corrected in the long run.

For improving upon the existing 'adequate teaching infrastructure' in automobile engineering, constant interaction by faculty members of the institutes with industry was among the important factors as in most cases, teachers were not abreast of the latest developments in automobile technology.

In addition, better co-ordination between academia and the industry by upgradation of educational facilities would ensure more employable manpower. Initially, about 20 engineers would be selected for the academic programme, he said.

Seminar on Environmental Awareness

The Department of Adult, Continuing Education and Extension, University of Delhi, Institute of Correspondence Courses and Continuing Education, Madurai Kamraj University and Rainbow Education Society jointly organised a one-day seminar on "Creating Environment Awareness — A Non-Formal Approach" to discuss various types of pollution perceived by the younger generation and to minimise their impact. Thirty five students with different disciplines like science, languages, commerce and humanities participated in the seminar.

Explaining the objective of the seminar Dr. D. D. Aggarwal, from the Department of Adult, Continuing Education and Extension, Delhi University, said that it was not sufficient that one should know about various elements of environment and imbalance brought in them by human activities but there was a need for educating the masses towards their ill effects and the role they should play in minimising this. So as a upcoming generation they should disseminate the desirable activities in the people, particularly illiterate ones

Ms Bhuvana Jayaraman presented a comprehensive account of various types of pollution faced by the urban population. She talked of air pollution, water pol-

lution, noise pollution—various sources and their impact on human life. She felt that environment education should form an integral part of all educational programmes.

Ms Preeti Kumari, a biology student, talked of radio-active pollution, giving details of how radio-active pollution was an invisible, less talked of but deadly polluted the environment. She cautioned the nuclear scientists about its consequences. Ms Rashmi Kukerja presented a well documented paper on 'Acid Rains'. She also warned that like radio-active pollution, acid rains were not discussed much but they had equally devastating impact on human life. She deplored the uncontrolled use of chemicals and addition of chemical pollutants in water bodies.

Mr. Ajay Kumar, a teacher in a public school, gave details of noise pollution in all walks of life. He stressed the need of incorporating strict legal measures against those who made the life on road insecure. He stated that continuous exposure to noise led to permanent deafness.

Mrs S. Madhura, an English teacher, talked of visual pollution in respect of bright light emitted by vehicles. She lamented that despite legal provisions to blacken the upper half of head lights of all vehicles, no body practised it and it made driving in night difficult.

Mr. Parveen Chopra talked of mind pollution. He stated that continuous exposure of children to mass media particularly by TV, was vitiating the minds of younger generation. Sex and violence

were deviating children's mind from simple and pious life to a life of luxury. Differing with him Mrs Rachna Pandit, he expressed the opinion that Television or print media were not only the source of misinformation but it also encouraged the people to enter in crimes related to sex and violence.

Many of the participants opined that such types of discussions should be organised in communities to make the masses aware of the health problems created as a result of ecological imbalance.

JNU-IGNOU Computer Lab

The Jawaharlal Nehru University (JNU) and Indira Gandhi National Open University (IGNOU) propose to set up a modern Computer Lab, as a joint venture, for the use of students of both the institutions.

According to a Memorandum of Understanding (MoU) signed between the two institutions, JNU will provide space, infrastructural facilities as well as teaching and technical staff, while IGNOU will provide computers worth Rs. 30 lakh. The maintenance of these computers will be IGNOU's responsibility, but each university will separately contribute consumables for its students.

This Computer Lab will serve as a model for similar facilities to be set up by IGNOU in other parts of the country. The Lab will be connected to IGNOU's Regional Centres through its wide area network. It will support these Centres through facilities like e. mail, file transfer audio and teleconferencing and bulletin boards.

The arrangement will be va-

lid for a period of three years. The equipment and facilities to be installed shall be updated with the passage of time with focus on most useful and latest machines or packages available in the fast changing technology.

Saraswati Samman 1995

Saraswati Samman, an award instituted by the K.K. Birla Foundation, is given every year to an outstanding literary work written in any of the Indian languages mentioned in Schedule Eight to the Constitution of India by an Indian citizen during the last 10 years preceding the specified Samman year. The work may be in any genre of literary writing such as poetry, fiction, novel and short story, humour and satire, drama, essays, biography, autobiography, literary criticism, history of literature, etc. It carries an award money of Rs. 3 lakhs.

The Samman for 1995 will be presented to '*Nivedyam*' a poetic work (Malayalam) of Smt. N. Balamani Amma published in 1987.

'*Nivedyam*', an anthology of 132 poems, is a major collection of poetry, which highlight the achievement of more than sixty years of the author's poetic career. These poems reflect the three main areas of her life long concern, namely, the role of woman, the state of society and the upward urge of the human spirit. Her poems on woman deal with all aspects of the subject: woman as bride, wife, mother, grandmother i.e., woman at home, woman in society — the domestic servant, the employed woman, the woman as lover, the woman as Kali. Her poems on social themes cover nationalist struggle,

human fraternity, aspects of Indian culture and reinterpretation of puranic myths in terms of contemporary awareness. Her poems also deal with man's relation to God, to nature, to himself as well. The short and sweet title poem, '*Nivedyam*' in a way brings together all these vital concerns to a single focus.

Refresher Course in English

Professor Sarup Singh, formerly Governor of Gujarat and Vice-Chancellor of Delhi University, called upon the teachers to give their best to the students and the society at large. He was delivering the inaugural address at the UGC Refresher Course in English, organised by the Department of English, Kurukshetra University recently. Dr. Singh reminded the teachers of some of their basic obligations to their profession, society and country. In view of the general decline and fall of values in the country, the role of teachers acquired a special significance. The future of English studies in India, felt Dr. Singh, depended, to a very large extent, on the teachers' ability to sustain and stimulate the students' interest in literature.

Professor G.K. Das, Vice-Chancellor, Utkal University, in his Keynote address, spoke of the post-colonial bias that often coloured our reading of literary texts. "As students and teachers of literature", said Professor Das, "we must free our minds of all prejudices in order to make the experience of reading rich and personal". Discounting the over-emphasis of formalism as the text, Professor Das said that every text had a context and so must be read

comprehensively in the light of our cultural heritage. He went on to give a reading of Rudyard Kipling, E.M. Forster and L.H. Myers that brought out the vast variety and richness of Indian life. The Indian experience was so vast that no single book could comprehend the totality of it. It would be unfair, felt Professor Das, to apply a sweeping imperialistic standard to our reading of the writers who had written about India.

Professor Bhim S. Dahiya, Vice-Chancellor of Kurukshetra University, who presided, paid a glowing tribute to Dr. Sarup Singh's legendary role as a teacher and advised the teachers to follow his example to become better teachers and human beings.

Seminar on Hindi Novels

A two-day National Seminar on "Daswein Dashak Ke Hindi Upanyasa : Vartman aur Bhavishya" (Hindi Novels of Nineteen Nineties : present and future) was held as a joint-venture of Vinoba Bhave University, Hazaribag and the Directorate of Hindi, Govt of India at the Raja Shiva Prasad College, Jharia, Dhanbad, a constituent college of Vinoba Bhave University.

Prof. M.L. Das, Co-ordinator, College Development Council, Vinoba Bhave University, who inaugurated the seminar, observed that even though timelessness and universality were the touchstones on which all great works of art were judged, it had been customary to study art and literature with their roots in present time so that they could act as 'mirror of life' and as 'chronicles of time'. He appreciated the present day Hindi novelists' concern for the common man, particularly for

women and their emancipation. He said that novels like Surendra Verma's *Mujhe Chand Chahiye* could prove to be pace-setters. Prof. Das said that the Hindi novels had acquired a wonderful variety and spectrum of themes but their future might demand some changes in the shape, size and technique of writing as the electronic media, with radio, cinema and television, seemed to threaten the existence of novels. Voluminous novels like *A Suitable Boy* and *The Moor's Last Sigh* were still being sold and bought like hot cakes said Prof. Das and expressed the hope that neither poetry nor novel would die. He told the novelists that maybe that the busy man of the 21st century pressed on the novelists to limit their novels within two hundred pages or so, but howsoever short of time he might be, he would always delve deep into the founts of pleasure in novels. The novel shall not die.

A large number of papers concentrated their focus on the treatment of new women. Novels like *Maayee*, *Aye Larkee* and *Mujhe Chand Chahiye* were repeatedly referred to and extensively quoted.

Seminar on College Administration

A one-day ICSSR sponsored Regional Seminar on "Existing administration of colleges in North-West Region and Agenda for the future" was held at the Govt College, Gohana (Sonapat). Dr. (Mrs) Sarla Malik, Professor of Public Administration, Maharshi Dayanand University (MDU), Rohtak inaugurated the seminar.

Dr. Harbans Pathak, Associate Professor of Public Administration, Punjabi University, Patiala, in his keynote address,

highlighted the college administration during pre- and post Independence period. He said that "the demand all over the world today is not only for more teachers but for better teachers at all levels. So to secure such a stuff is also an agenda of paramount concern for all of us." Dr. Pathak also stressed for good trade-unionism, accountability and evaluation of teachers. He said that "the student, in fact, is the *raison d'être* for any college or university and thus constitute the most important community of any institution. Therefore, all the activities of the colleges should be planned or developed keeping the welfare of the students in mind first and last."

Mr. Om Parkash Wadhwa, Lecturer in Public Administration, Govt. College, Gohana was the seminar Director

Vyas Samman for Kunwar Narayan

The Vyas Samman, carrying an award money of Rs. 1.50 lakhs, instituted by the K.K. Birla Foundation is given to an outstanding Hindi literary work of an Indian citizen published during the last 10 years. The award work may belong to any genre of literary writing such as poetry, novel, short stories, play, history of language and/or literature, criticism, essays, biography etc.

For the 1995 Vyas Samman *Koe Doosra Naheen*, published in 1993, a collection of poems of Shri Kunwar Narayan, the well-known Hindi poet and writer, has been selected.

Koe Doosra Naheen contains quintessence of Kunwar Narayan's poetry. Several poems directly relate to a growing anxiety for the protection of man's freedom and integrity in socio-politi-

cal set-up which tend to make him feel alienated and lost. Equally important is a concern for common man's plight to survive with dignity and honour in a world sadly divided against itself by the powerful emergence of a consumer culture and contending political forces. There is an attempt to understand life not in fragments but in totality and reflect it not in simplistic terms but in its complexity. To use language poetically is to use it most sensitively, and to assert faith in man's abiding powers to create beauty, and ability to live in harmony with himself, with nature and with others. The tragic and the farcical are sometimes viewed with a mixed sense of compassion and irony. In some of the poems, with the subtle use of historical imagery and mythical references, the problematic present has been magnified on a wider field of Time. In some, the natural landscapes are imbued with the quality of a life as if in deep meditation, or in love.

The first four Vyas Sammans for the years 1991, 1992, 1993 and 1994 were awarded to Dr. Ram Vilas Sharma (*Bharat Ke Prachin Bhasha Parivar Aur Hindi*), Prof. Shiv Prasad Singh (*Neela Chand*), Shri Girija Kumar Mathur (*Main Waqt Ke Hoon Samane*) and Dr. Dharmvir Bharti (*Sapna Abhi Bhi*).

Dalit Writings, Movements and Social Change

The Departments of Sociology & English, University Arts & Science College of the Kakatiya University, Warangal, proposes to organise a National Seminar on Dalit Writings, Movements and Dynamics of Social Change on Feb 23-24, 1996.

The topics proposed to be discussed at the seminar include (i) Dalit Writings and Writer Activists; (ii) Caste System and the

Indian Polity; (iii) Phule, Ambedkar and Gandhian Thought; (vi) Buddhist and Marxist Approaches; (v) Dalit Movements and the Problematic of Power; (vi) Challenging Status Quo and Paradigms of Social Change; (vii) Impact of hi-tech on Dalits and their Occupations; (viii) Black, Women and Dalit Writings vis-a-vis Dalit

Movements; and (ix) Minorities and the Women's Question.

Further details may be obtained from Dr. D.M. Ravi Prasad, Director National Seminar on DWM&DS Change, University Arts & Science College, Kakatiya University Warangal - 506 001. A.P.

News from Agricultural Universities

Seminar on Natural Resource Management

Dr. S. Arya, Vice-Chancellor, Chaudhary Charan Singh Haryana Agricultural University (CCSHAU) cautioned against the erosion of germ plasm of important native plants that had been taking place in the wake of paucity of funds. He was inaugurating a three-day seminar on Natural Resource Management in Hisar recently. He said with the signing of WTO it became imperative on the part of scientists to do their best to preserve and multiply those plant species that were on the verge of extinction.

Speaking on the foodgrain situation in the country he said that owing to increasing population pressure on the natural resources it had become more challenging for the agricultural scientists to achieve sustainability in agricultural production. He said excessive use of chemical fertilizers, insecticides and pesticides to get higher yields, had further worsened the situation by deteriorating soil health and environment.

Dr. Arya called upon the agricultural scientists to develop and transfer to the farmers the technologies that were ecofriendly and useful in maintaining sustainability in agriculture.

Mr. Tillman Waldroof, Director, Max Muller Bhawan, New

Delhi, in his presidential address, made a call to the agricultural scientists, policy makers, economists as well as sociologists to make joint efforts for increasing agriculture and animal production. He also felt concerned over the excessive use of different inputs in agriculture.

On this occasion, Prof. P. Tauro, to whom this seminar was dedicated, was honoured for his services to science and society. The Vice-Chancellor presented him a citation and a memento. A book and a commemorative volume were also released by the Vice-Chancellor.

Over 300 experts from different fields of science and NGOs, both from India and abroad, participated in the seminar. The focus was on plant-microbe interaction in sustainable agriculture.

Parmar University Completes a Decade

Dr Y S Parmar University of Horticulture and Forestry, Nauni-Solan, completed its first decade on 1st December 1995. On this occasion a special lecture was delivered by T N Kaul, former Ambassador & Member of the Board of Management of the University. Mr. Kaul said that the university was playing a key role

in strengthening the economy of the state and improving the ecology of the entire hilly region of the country by its pioneering work in the field of horticulture and forestry. He said that 10 year was not sufficient for the assessment of any institution but the efforts made by the University showed that entire nation was looking towards this University for the scientific work done in the field of horticulture, forestry and allied disciplines. Still there was an urgent need to generate low cost technical knowhow for the farming community of the state as the land holdings were small and the farmers were not in a position to adopt costly technology like advance countries, he added. He advised the scientific community to conduct research on high value cash crops and lay adoptive trials on farmers fields for the successful transfer of technology to the grassroot level. Mr Kaul, who himself is a horticulturist,

said that there was an urgent need to focus more on the applied research instead of basic research. He congratulated the University for generating the funds to the tune of Rs 6 crores within a year and assured to provide all possible help for bringing money from the national and international donors.

Prof L R Verma, Vice-Chancellor, highlighted the various activities of the university and said that the mountain specific extension strategy was on the top priority of the University to boost the economy of the rural poor of the state. He informed that the work of Communication Centre, 1500 seats Gymnasium was continuing on war footing. The Vice Chancellor thanked ICIMOD for providing money to start Women Development Centre at the Campus, Seabuckthorn Research Station at Tabo in Lahaul & Spiti and Geographic Information Centre

"Current Affairs : Economics and Commerce"

"The Week Ahead"

23.1.96

"Question Time"

"The Living Heritage of Temple Architecture - Part 2"

25.1.96

"Algorithms"

"Dinosaurs in Gujarat"

"Freshers in the World of Machinery"

27.1.96

"Starfinder Part IX : Gravity and Weight"

"SAARC Today"

"Waste Management"

28.1.96

"Career Counselling - Masters in Business Management"

"Guitar - The Playing Technique - Part I"

"The Week Ahead"

30.1.96

"Application of Information Technology Tool through Satellite - Part I"

"The Living Heritage of Temple Architecture - Part 3"

"Sea Weeds"

Ind Transmission

1.00 p.m. to 2.00 p.m

16.1.96

"Iron Ore : Occurrence and Mining"

"Teaching Technique : Role Play"

"Health in Your Hands - Part II : Yoga"

17.1.96

"Missile Technology - III : Classification, Technology and Fallout"

"Indian Historiography - Part I"

"Revealing the Lac Operon"

News from UGC

Countrywide Classroom Programme

Between 16th January to 31st January, 1996 the following schedule of telecast on higher education through INSAT-ID under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 6.00 a.m. to 7.00 a.m. and 1.00 p.m. to 2.00 p.m. The programme is available on the TV Network throughout the country.

1st Transmission

6.00 a.m. to 7.00 a.m

16.1.96

"Oscillation - Important Parameters"

"The Living Heritage of Temple Architecture - Part I"

"Virus and Cells"

18.1.96

"The Discoverer of Polarography"

"Semiotic Approach to Musical Aesthetics - Part II"

"Volcano"

20.1.96

"Starfinder - Part VIII: Orbital Motion"

"Democracy : The Ideology and Practice"

"Garbage"

21.1.96

"Glimpses of Ladakh - Part II"

18.1.96 "Microwave Antenna - Part I" "Hydrological Cycle" "The New Narrative of Latin America - Part II"	"Income Tax - Tax, Budget and Black Money" "Saga of Silk - Part 2 : Silk Warm Rearing and Mulberry"	19.1.96 "जियो और जीने दो"
19.1.96 "The Cut of Compassion" "A Breath of Fresh Air"	30.1.96 "Chromotherapy" "World University Service: Education for All" "Anaemia"	22.1.96 "हैम—एक अद्भुत दूर संचार का साधन" "प्रकृति पुत्र . आदिवासी"
20.1.96 "Venturing out with Photography" "Facing the Future - Part 2" "Sports Medicine"	31.1.96 "Application of Close-Range Photogrammetry" "Burial Mound at Sekta" "Crocodiles - Part II"	24.1.96 "गवाह"
21.1.96 No Telecast	Hindi Telecast प्रातः 6.00 से 7.00 बजे तक	26.1.96 "अनुराग सुमित्रानन्दन पंत" "स्वच्छजल परिस्थितिकी"
22.1.96 "The Week Ahead" "Income Tax - An Introduction" "Saga of Silk - Part I. Legends and Development"	17.1.96 "जल विद्युत का उत्पादन" "कैक्टस"	29.1.96 "बायोमास गैसीकरण पर बी. सी. जैन - भाग 1" "द चिप"
23.1.96 "Flouride Hazards of Potable Water" "Communicators of Army : Excellence through Training" "Health in Your Hands - Part III : Diseases and Cure"	News from Abroad Admission to French Universities Indian nationals seeking admission into French Universities for the academic year 1996-97 at the undergraduate level (first cycle), in Arts, Sciences, Medicine and Law, must undergo pre-inscription formalities (provisional enrollment). For admission into the first cycle of a French university, it is preferable for the candidate to have a Bachelor's Degree. However a candidate with a "10 + 2" may appear for the entrance examination. The university to which he/she applies will decide upon the equivalence to be granted. Any other examination which makes a candidate eligible for university studies in his/her own country is also accepted for the purpose of enrollment. This procedure does not apply for Engineering studies. Those interested in enrolling themselves for Engineering are required to write directly to the French institution of their choice. No scholarships are offered at the undergraduate level of studies. Candidates have to meet their own expenses (tuition fee, living expenses, travel, etc.) in foreign currency (roughly 40,000 French Francs per year). This procedure is not applicable to candidates with a French "Baccalauréat". Candidates seeking admission into the first cycle will have to submit the completed forms by 30th January and undergo a French language test on Thursday 15th February 1996. Pre-inscription forms and other details may be obtained upto 15th January 1996 from: C.E.D.U.S.T., French Center for Documentation on Universities, Science and Technology, Embassy of France, 2, Aurangzeb Road, New Delhi-110 011.	
24.1.96 "Risk of Failure" "Indian Historiography - Part II" "Crocodiles - Part I"		
25.1.96 "Microwave Antenna - Part II" "Fate of 1988 National Forest Policy" "The Appreciation of a Poem"		
26.1.96 "Slicing n-cubes" "The Leather Story - Part I : On the Edge of Time" "Warning for Warming"		
27.1.96 "Your Form is My Creation" "The Brass Family"		
28.1.96 No Telecast		
29.1.96 "The Week Ahead"		

BOOK REVIEW

Revitalising University System

P.N. Srivastava*

M.V. Mathur, Ramesh K. Arora and Meena Sogani, Eds. *Indian University System: Revitalization and Reform*. New Delhi, Wiley Eastern Ltd., 1995. Pp. vii + 472. Rs 475.

It is rather unfortunate but true that universities in India, in general, have not been able to maintain their excellence for long while in the west and Japan good universities have retained their positions not only for decades but for centuries. What are the reasons for this?

Starting with Radhakrishnan Report (1948), Kothari Commission Report (1965), and *Challenge of Education — A Policy Perspective* (1985) followed by the National Policy of Education (1986), numerous treatises have been written on the problems and management of the university system but one does not see much effect since no one bothers about them. All the same it is necessary to hammer the issues, again and again, with the hope that some day good sense may prevail which may benefit the system and hence the country. In this connection, two books have been published recently (1) *The Vice-Chancellors Remember* edited by M. V. Mathur and Ramesh K. Arora (Associated Publishing House, 1992) and (2) *Indian University Sys-*

tem Revitalization and Reform edited by M.V. Mathur, Ramesh K. Arora and Meena Sogani (Wiley Eastern Limited, 1994), the latter being reviewed presently.

Reasons for the present state of universities are many. There has been a general tendency to put all the blame on the government and the politicians which is not the whole truth. A good share of the blame will also have to be shared by the university people as well starting from the Vice-Chancellor down to the Deans, Heads of the Departments and the Faculty. The book under review has shed light on many of the issues.

The development of higher education in the independent India can be roughly divided into three phases: (1) between 1947 to early sixties when the rate of growth was 4 to 5 per cent which could be taken care of by the economic growth of the country; (2) from early sixties to mid-seventies, when the growth jumped to 14 to 15 per cent and the economic growth could not cope up with this high rate of growth, and (3) from mid-seventies to the present time when the growth has reverted to about 5 per cent again. Another point that may be made at this stage is that even today the

number of persons going in for higher education in India is not more than 6 per cent which is very low as compared to even many developing countries of Asia and Latin America. In the latter students going in for higher education range between 20 to 40 per cent.

Appointment of Vice-Chancellor

Vice-Chancellor's position in Indian universities, unlike that of the President in American universities, is very different and important. He is the academic and executive head of the university and hence a lot depends on him. It is no use citing innumerable instances where the universities have been made or unmade by them. Malcolm S. Adiseshiah (p. 44) has remarked that "The Vice-Chancellor's selection in India has today become a political act. The Government of India in the case of central universities and the governments of the states in that of state universities select the vice-chancellors and more often than not the selection is based on party and political considerations. The starting point, in the relationship between universities and the state should be depoliticization of the selection of the Vice-Chancellor".

This issue has been raised innumerable times but it is not changed. It may be worthwhile to mention my own personal experience in this matter. As a nominee of the University Grants Commission, I was on the panel for suggesting suitable names for two universities in Rajasthan in 1991. I was appointed the Chairman of

*Former Vice-Chancellor, JNU, Nuclear Science Centre, Jawaharlal Nehru University Campus, New Delhi-110 067.

the committee by the Chancellor. In the very beginning, before the meeting had taken place, I had apprised the Chancellor that I was shocked to see the names of the persons who were on the committee with me and wondered how were they appointed to serve this committee. The experience, no doubt, was frustrating. In my report to the Chairman, University Grants Commission, I wrote "I will like to emphasize again what I wrote in the beginning that the members nominated to serve in these committees did not have the academic/administrative standing or stature to perform such a responsible task".... "I will like to end the report by saying that in case the committees have to be constituted in such a manner and the vice-chancellors appointed through back-door methods like this, why should the facade of committees not be abolished and the government take the responsibility of appointing the vice-chancellors "

The Chairman of the UGC, Dr. Manmohan Singh (the present Union Finance Minister) was prompt in acknowledging my letter and said "I share your distress and unhappiness in this matter. I propose to discuss this issue with the members of the University Grants Commission so as to evolve a well thought out strategy for raising this matter with the appropriate political authorities". (letter D.O. No. F 6-5/6/91 dated 12/13 June 1991.) This was only a few weeks before he took over as Finance Minister at the Centre.

It may be stated that at the same time, within the same framework, many vice-chancellors have given an excellent account of themselves in many dif-

ficult central universities in difficult times in eighties and early nineties such as Syed Hamid and Hashim Ali at Aligarh Muslim University, Aligarh; P. N. Srivastava at Jawaharlal Nehru University, New Delhi and R. P. Rastogi at Banaras Hindu University, Varanasi. I am sure there will be some such instances in state universities as well. It is extremely important that a vice-chancellor who has to manage a university has to establish his/her credibility, objectivity and fairness without succumbing to influence or political pressure.

National Ethos and the University

I hear quite often even from persons occupying important positions of influence and authority that since the general ethos of the society and the country has degraded, how can universities keep themselves aloof from them. This is nothing but a defeatist attitude. Do the educationists and intellectuals not have a responsibility to give a lead to the society to correct itself and give a different direction? P. Jagannathan Reddy has rightly, though unpalatable, pointed out that "The academic-politico-intellectual of today is a deceitful imitation of the intellectual of yesteryears, whose concern about social problems and the genuineness of his concern were beyond question". He further points out that "The universities, instead of providing an example and leadership to society, have instead collapsed, capitulated and surrendered to the corrupt, criminal, mercenary society at large. Such an atmosphere has engulfed the entire university system, all segments, — the administrator, the teacher and the students. Oppor-

tunism and *ad hocism* are the hallmarks of university administration today". He ends his article with the statement that "Having considered the matter in the light of my own experience, and the conditions that are prevalent in the country my answer is though I may be wrong, unless intellectuals can bring about a revolutionary change and outlook in our society, I doubt it. Let us hope that such intellectuals will emerge in our country to change its entire outlook so as to subserve not only its interests but the interest of humanity as whole."

Professional Ethics and Accountability of Teachers

In our country we are adept in putting our drawback and weaknesses under the carpet and some who dare to talk about this are labelled as persons with a negative outlook or pessimists. In many countries, people do talk about this and discuss the issue in depth, not in India. In the context of USA, Charles M Chambers has remarked in a discussion that "While all professions that contain a large element of public confidence and trust face eroding values, nowhere has ethical slope become more slippery than in our own college and university campuses." One who has some knowledge of universities and colleges, I can say with full and absolute confidence that our situation in India is much worse. But has the Association of Indian Universities or the Conference of Vice-Chancellors ever shown their concern and discussed about this?

S.K. Agrawala has written that "The unique position which higher education occupies is well recognized. The special obligations which it imposes on the

teaching community are also not in question. There are two modalities for the implementation of these obligations: (a) observance of a personal code of conduct, and (b) performance appraisal. As an ideal, the observance of the obligations, through these modalities, is the responsibility of the academic profession itself. In India, it, by and large, has failed to discharge its responsibility". Code of conduct should be there not only for teachers but for every one including the officers of the university, namely, the Vice-Chancellor, Pro Vice-Chancellor, Deans and Heads of the Departments, etc. In this connection, Agrawala has mentioned further that a task force, set up by the UGC, prepared a Code of Professional Ethics in 1988 in consultation with AIFUCTO, and it was adopted by the Commission the same year. This code, by and large, is a verbatim reproduction of the same code earlier adopted by AIFUCTO. There is nothing in the code to suggest that it is enforceable, either legally or morally. It has been addressed to the vice-chancellors and not to the teachers! Obviously nothing has happened and no university is known to have acted upon it. Even the AIFUCTO, as a professional organization of teachers, has also not appealed to its members to observe the code even as a moral obligation. Depending upon the university, it is known that 20 to 50% of the faculty and students are still conscientious workers. Should proper climate not be created so that they become effective and should not be compelled by any circumstances to keep their mouths shut? R.C. Mehrotra has also expressed his very valid concerns about his UGC pay committee's dialogue with the

AIFUCTO as well as the accountability of the teaching profession.

Dealing with the Societal Obligations of University, Hari Narain has rightly remarked: "Our young people are full of vitality, enthusiasm and aspirations. They are our most precious asset. They have every right to go through an educational system which motivates them, trains them and prepares them to meet future challenges. The government and society have an obligation to provide such a system. The present conditions are extremely frustrating".

M V. Mathur in his concluding article "Reforming Indian Universities: My Vision" has repeated again his philosophy that "A very important innovation in my vision consists of promoting either full-fledged 100 per cent centrally or state government financed universities with professional governance or fully privately financed non-government-

tal universities or deemed to be universities to replace the on going 'mixed up' model of partially, centrally or state government-financed so-called autonomous universities". Although most of the universities are being funded either by the central or state agencies but what is true of all the universities is that they have not been allowed to be governed professionally.

Indian University System: Revitalization and Reform has 35 chapters contributed by very eminent educationists who have devoted perhaps their entire career in the field of education; has a wealth of information which has to be heeded if at all we have some concern for higher education. One may differ from their views in some areas is a different matter. The book has chapters dealing with almost all the aspects of university education and the editors deserve to be congratulated for bringing out this book.

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Shri Bipin Mehta: Chairman, EC, Compuvision Software Services, White house, A'bad-6. Ph.: 079,6426450, Fax: 079,6568750

Changing from Narrow Gauge to Broad Gauge System of Education

Anand P. Srivastava has talked of two systems of higher education (i) Narrow gauge system prevalent in most universities of Indian subcontinent, and (ii) broad gauge system prevalent in a few universities of this region and most universities of the rest of the world¹. I have called these the present Indian system and the Western system of education.^{2,3} Of course calling the second system as broad gauge system is likely to make it more acceptable than calling it as the Western educational system.

Indian railway system is changing over to broad gauge system in a planned and phased manner and this is what Srivastava would like to happen in the case of the Indian educational system. However the differences may be noted:

(i) In the case of the railways, the decision had to be taken by one Railway Board, while in the case of education, the decision has to be taken by over 200 universities and 8000 colleges.

(ii) In the case of railways, the major system was broad gauge and the proposal was to merge the minor narrow gauge system with the major system. In the case of higher education, the major system is of narrow gauge and there are already pressures from the narrow gauge section to convert the small broad gauge sector into the narrow gauge sector.

(iii) Many of the materials of the narrow gauge system became useless and had to be reprocessed, but in higher education instead of material, we have hu-

man beings. The reprocessing of their attitudes is much more difficult than reprocessing of materials.

(iv) Once the Railway Board took the decision of converting to the broad gauge system, the further details of implementing the decision could be easily worked out. Here, in the educational system, the decision for such a conversion has not yet been taken and in fact there are powerful vested interests against such a decision. The broad gauge system can be a reality when the decision to go over to a broad gauge system is taken with clarity and firmness. We cannot have narrow and broad gauge coaches running on the same tracks. In the same way we cannot have narrow and broad gauge systems of education existing in the same institution. Most of the recommendations of education commissions have not been successful because they were attempts to fold some features and broad gauge system on an essentially narrow gauge system. It was not due to lack of seriousness on the part of the government that these recommendations were not implemented. It was simply that the narrow gauge system refused to accept these recommendations which were not compatible with its own structure and its own spirit.

Thus it was suggested that part of the assessment should be internal, but the internal examiners were not given any responsibility for giving final grades to students. The narrow gauge system rejected this suggestion by internal examiners giving very

high marks to their students. Similarly, it was suggested that teachers should examine their own students. This was allowed in many postgraduate departments. But the other features of broad gauge system of announcing the synopses of courses, regular quizzes and tests, showing of answer books to students, keeping records of all the topics taught, were not incorporated. The result was that teachers taught only some of the topics and examined the students in these topics. The narrow gauge system showed its strength by defeating this innovation. It was also suggested that teachers in higher education should teach only two courses in a semester as in other parts of the world. This suggestion was accepted by all readers and professors. But the other features of the broad gauge system of the teachers regularly examining their students throughout the year and spending time with them was not implemented. The narrow gauge system reduced the load of teaching for the teachers without any benefit to the students.

There was a suggestion that no teacher should stagnate for lack of posts. This good feature of the broad gauge system was adopted, but other concomitant essential features of broad gauge system viz. explicitly-stated, published, pronounced detailed criteria for excellence in teaching and research, openness for selection process, inputs of students and teachers in this process and accountability of selection committees were not incorporated and again the narrow gauge system defeated a good reform because it was adopted only in part. Similarly the UGC adopted in good faith a feature of the broad gauge

system that every teacher in higher education should have a Ph.D degree but this was rejected by the narrow gauge system by simultaneously lowering the standard of Ph.D degree. The UGC did not insist on the safeguards used in the broad gauge system for maintaining standard of this highest degree of a university.

There have been many similar cases where some features of the broad gauge system which suited vested interests were taken over while other features which were more essential were ignored and thus it was sought to be proved that the broad gauge system was not suitable for India.

We have to accept the broad gauge system as a whole with all its checks and counter checks. We may not accept it immediately for the whole country and may accept it for one or more universities or one or more colleges or one or more departments, but wherever we do so, we should adopt it as a whole, otherwise vested interest will do their best, by diluting it, to bring it into disrepute.

External examination is an essential feature of the narrow gauge system and so many vested interests like those of made-easy books writers, those engaging in private tuitions and those making money in printing guess papers, those who oblige friends by making them examiners etc, have been built in this system that it may not be easy to change this system. You cannot amend the system. You can only break it.

Continuous internal objective examination system is an essential feature of the broad gauge system. This means regular work throughout the year for both the students and the teachers. Its adoption means that students and teachers will not have much time for students union and teach-

ers associations activities. This will mean the weakening of the political wings among students and teachers. The politicians will not like it. The students may not like it, though it is in their own interest and the teachers may not like it because in this system they will have to correct assignments and test papers, and what is more important, they will be held responsible by the students for the marks given by them. It will no longer be possible to blame the vice-chancellor and the examiners or the educational system because it will be teachers who will be running the system.

The autonomous colleges idea was an important step to change over to broad gauge system in a phased manner because here it was expected that the teachers of a college will take the responsibility for the education in the college. But the progress of this scheme is far from encouraging. If we go ahead at the present rate, we may take more than 100 years to change over to the broad gauge system and in fact the change over may not come about because in some states there are already attempts to take away the autonomous status from the colleges.

Srivastava's suggestion for starting with autonomous postgraduate departments is welcome. In fact the only feasible course for us is to convert every year 50 postgraduate departments and 100 colleges to the autonomous status. In the beginning strong incentives and pressures will be necessary, but after the number of autonomous departments and autonomous colleges reaches above a critical value, these incentives and pressures may not be necessary.

The battles for broad gauge system have to be fought in the

minds of students and teachers and the general public. They have to be convinced that the only educational system which can deliver the goods is the broad gauge system. It is hoped that all teachers and students and educationists will have free and frank discussions on the merits of the two systems without any bias and if they are convinced of the superiority of the broad gauge system, they will have the courage to adopt it in spite of its requiring more hard work on the part of everybody, since only that educational system can give excellent education in which everybody puts in hard, sincere and dedicated work.

Let us not introduce reforms piece by piece because each reform by itself can be defeated by vested interests. The broad gauge system as a whole is strong enough to resist pressures from vested interests and in fact it has been so designed that no vested interest can exploit it. If the broad gauge system has to be adopted, it has to be accepted in toto so as to not to provide loopholes to vested interests.

The broad gauge system has delivered the goods in every other country of the world. There is no reason why it should not do so in India.

J N Kapur
Jawaharlal Nehru
University and
C.V. Educational Foundation,
C-766 New Friends Colony,
New Delhi-110 065

References

- 1 A P Srivastava Improving Higher Education, *University News*, 9 Oct. 1995, Pp. 1-8
- 2 J N Kapur *Towards Excellence in Higher Education* MSTS, New Delhi
- 3 _____ *Restructuring Higher Education in India*, C V K E F, New Delhi
- 4 _____ *Quality in Higher Education Measurement and Assurance* C V K E F New Delhi

RESEARCH IN PROGRESS

A list of research scholars registered for doctoral degrees in Indian Universities

SOCIAL SCIENCES

Sociology

1 Somkala Unnatural death of women · A sociological study BHU Prof C B Tripathi, Department of Forensic Medicine, Banaras Hindu University, Varanasi

Social Work

1 Buwa, Suman Krishna A study of anganwadi in Kolhapur City Shivaji Dr A D Madgulkar, Department of Social Work, Chh Shahu Central Institute of Business Education and Research, Kolhapur

Political Science

1. Patil, Dinkar Vishnu. Political leadership of Shri Vasantdada Patil with special reference to his role as the Chief Minister of Maharashtra from 1977-1989. Shivaji Dr (Smt) V P Rasam, Department of Politics, Shivaji University, Kolhapur

Economics

1 Apram, P J Economics, education and security : An integrated approach. Shivaji Dr R Bhardwaj, Director, Research and Development Centre, Chh Shahu Central Institute of Business Education and Research, Kolhapur

2 Barbole, Tukaram Limbaji A socio-economic study of Vang-Valley Bombay labour migration. Shivaji Dr N K Patil, Y C Warana Mahavidyalaya, Warananagar

3 Gotikar, Shivaji Bhimran Labour problems in Bombay based composite textile mills since 1980. Shivaji Dr V M Hilage, Department of Economics, Chh Shahu Central Institute of Business Education and Research, Kolhapur

4 Jog, Suneeta Manohar Public debt management of the Government of India, 1975-1995. Shivaji Dr A A Dange, Department of Economics, Shivaji University, Kolhapur

5 Karol, Sanju Growth and instability in agricultural production . A disaggregated analysis of Himachal Pradesh. HP Dr (Mrs) K K Kaushik, Reader, Department of Economics, Himachal Pradesh University, Shimla

6 Khatake, Dinkar Rangnath Economics of sheep and goat rearing in Maharashtra Shivaji Dr V B Jugale, Department of Economics, Shivaji University, Kolhapur

7. Patil, Mohan Gajanan A critical study of pricing of milk and milk products with special reference to Government Milk Scheme, Miraj. Shivaji. Dr S S Sahasrabudhe, Principal, Chitamanrao College, Sangli

8 Roland, Tochukwu Obiakor. A study of foreign investment in Nigeria with special reference to foreign collaboration arrangements Shivaji. Dr D H Hindocha, Department of

Economics, Chh Shahu Central Institute of Business Education and Research, Kolhapur.

Law

1 Dube, Ganga Charan Paryavaran pradushan nivaran evam niyantran mein lok hitvad ke upadeyata evam yogdan. Ek tulnatmak adhyayan viaheshkar Bharat ke sandarbh mein. H S Gour. Dr H N Giri, Department of Law, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

Public Administration

1 Chawla, Sudesh Kumar Primary health care administration in Himachal Pradesh. Panjab Dr R K Sapru, Department of Public Administration, Panjab University, Chandigarh

2 Garg, Anurag Management of public sector enterprises in the changing scenario : A study of 'Coal India Limited'. Panjab Dr Pawan K Kumra, Department of Public Administration, Panjab University, Chandigarh

3 Gupta, Vandana Role of bureaucracy in socio-economic developments A study of District Solan, Himachal Pradesh. HP Dr P P S Gill, Department of Public Administration, Himachal Pradesh University, Shimla

4 Hiteshwar Singh Administration of family planning programme in Himachal Pradesh HP D Sewa Singh Chauhan, Department of Public Administration, Himachal Pradesh University, Shimla

5 Kewal Ram Representative bureaucracy · Impact of reservation policy in Himachal Pradesh HP Dr P P S Gill, Department of Public Administration, Himachal Pradesh University, Shimla

6 Lakhanpal, Krishan Dutt Role of Panchayati Raj institution in poverty alleviation programme : A comparative study of Shimla and Solan Districts of Himachal Pradesh HP Dr P N Gautam, Department of Public Administration, Himachal Pradesh University, Shimla

7. Rajesh Kumar State police personnel in Himachal Pradesh: An ecological perspective. HP Dr P P S Gill, Department of Public Administration, Himachal Pradesh University, Shimla.

Education

1 Arora, Renu Impact of imparting health and nutrition education to mothers on growth and development of their pre-school children. Panjab Dr (Mrs) Tehal Kohli, Department of Education, Panjab University, Chandigarh

2 Asha Rani A study of intelligence, creativity, personality characteristics and value patterns of adolescents from minority and non-minority communities. Panjab. Dr S C

Gakhar, Department of Education, Panjab University, Chandigarh.

3 Cheema, Sharanjit Kaur. Effectiveness of Computer Assisted Instruction as related to intelligence, learning style and attitude towards science subjects. Panjab Dr G S Sodhi, Department of Education, Panjab University, Chandigarh

4 Chitra Lekha Psycho-social correlates of scientific creativity among traditional model and navodaya school children. Panjab Dr S C Gakhar, Department of Education, Panjab University, Chandigarh

5. Dhiman, Anurag An evaluative study of teaching of History and Economics in senior secondary schools of Haryana. Panjab Dr S C Gakhar, Department of Education, Panjab University, Chandigarh

6 Garg, Devendra Kumar 1947 se Uttar Pradesh mein vishwavidyalayee shiksha ke samasyayen aur samadhan Avadh Dr Gouri Shankar Pandey, Reader, K S Saket College, Faizabad

7 Karamjit Singh A study of socio-psychological characteristics of university level individual and team athletes. Panjab Dr Ajmer Singh, Director, Sports, Panjab University, Chandigarh

8. Mahajan, Navita Learning styles and locus of control of gifted and average students in different academic subjects Panjab Dr (Mrs) Asha Sethi, Department of Education, Panjab University, Chandigarh

9 Pandey, Gourishankar Bharat mein shiksha ke uddeshyon ke vikas per katipaya pramukh darshnik dharayon ke chhap. D Litt Avadh

10 Shrivastava, Rekha Vivekanand evam Annie Besant ke shaikshik vicharon ka tulnatmak adhyayan Avadh Dr Gauri Shankar Pandey, Reader, K S Saket College, Faizabad

11 Singh, Maduri Garhwal mandal ke junior tatha high school kakshayon ke vidyarthiyon ke Sanskrit lekhan ke trutiyon ka vishleshan aur samadhan Avadh Dr Gauri Shankar Pandey, Reader, K S Saket College, Faizabad.

12. Singh, Shikha Adarshvad, prakritivad tatha prayogvad ka adhunik Bhartiya shiksha mein chhap ka adhyayan Avadh Dr Gauri Shankar Pandey, Reader, K S Saket College, Faizabad
Commerce

1 Bhagwat, Nitin Baburao A study of bakery industry in Kolhapur District with special reference to production, financial and marketing problems. Shivaji Dr C S Shreshthi, Chh Shahu Central Institute of Business Education and Research, Kolhapur.

2. Gireeshkumar, G S. The primary housing cooperatives in Kerala : An evaluative study. Kerala Dr M Samgadharan, Department of Commerce, University of Kerala, Trivandrum

3. Han Kumar, P N A study on the LIC's schemes for the weaker sections of the society with special reference to social

security schemes. Kerala Dr K Sasikumar, Department of Commerce, University of Kerala, Trivandrum

4 Kodag, Vasant Baburao. A study of export marketing of grapes and raisins in Sangli District. Shivaji Dr (Mrs) V V Upadhye, Mayuresh, Mangalmurty Colony, Sangli.

5 Maindargi, Varsha Vivekanand Impact of advertising on consumption pattern of urban consumers in selected commodities. Shivaji Dr S K Kulkarni, D R K College of Commerce, Kolhapur

6 Nirmala Mabel, E R Evaluation of the working of Kerala State Civil Supplies Corporation Ltd. Kerala Dr S Resia Beegam, Department of Commerce, University of Kerala, Trivandrum

7 Rajeshurke, Narendra Yashwantrao. A study of administration of Kolhapur Municipal Transport with special reference to its service efficiency. Shivaji Dr C S Shreshthi, Chh Shahu Central Institute of Business Education and Research, Kolhapur

8 Thomas, Jacob Human resource management and organisation commitment : A study of managers in co-operatives Kerala Dr K Sasikumar, Department of Commerce, University of Kerala, Trivandrum

9 Udgaonkar, Deepak Vasantrao. Problems of intermediaries in distribution of pharmaceutical products in Sangli District Shivaji Dr (Mrs) V V Upadhye, Mayuresh, Mangalmurty Colony, Sangli

Home Science

1 Nanda, Sapna Assessment of an improved module of the national adolescent girls scheme and evaluation of the ongoing scheme. Panjab Dr (Mrs) R Puri, Assoc Dean, College Development Council, Panjab University, Chandigarh

HUMANITIES

Language & Literature

English

1 Pandey, Lakhan Lal Social ethos in the fictional world of Khushwant Singh. H S Gour Dr R S Pathak, Department of English, Dr Han Singh Gour Vishwavidyalaya, Sagar

2 Sharma, Rahul Kumar Identifying learner needs and preparing suitable teaching materials. A study at the plus two level under the Punjab School Education Board. Panjab Dr (Mrs) Pushpinder Sval, Department of English, Panjab University, Chandigarh

3 Wable, Dadasaheb Nanasaheb Fantasy in Iris Murdoch's fiction. Shivaji Dr S B Sagare, Jotiba Nivas, Naikwadi Plots, Gandhinagar, Barshi

Sanskrit

1 Hem Prakash Paniniya sangya sutron ka sameekshatnak adhyayan. HP Dr Nardeo Shastri, Department of Sanskrit, Himachal Pradesh University, Shimla

2 Khatri, Sunitaben Narendrakumar Jaggudhanvi

Bakulobhushana's Jayantika : A critical study. N Gujarat. Dr D G Vediya, Head, Department of Sanskrit, North Gujarat University, Patan.

3 Pandey, Rekha **Vrihatrayi mein riti vidhan.** Avadh Dr Rajdeo Mishra, Alokpur, Nai Colony, Faizabad

Hindi

1. Bagi, Madhavi Sanjay **Devesh Thakur ke upanyason mein chitrit nari patron ka anusheelan.** Shivaji Dr P S Patil, Head, Department of Hindi, Shivaji University, Kolhapur

2. Bansal, Neena Nirala aur Nagarjun ke kavya mein pragatisheel chetna ka tulnatmak adhyayan. HP Dr Chaman Lal Gupta, Department of Hindi, Himachal Pradesh University, Shimla.

3 Ghesta, Ambika **Sathottari Hindi kavita ke sandarbh mein Sarveshwar Dayal Saxena ka kavya.** HP Dr Krishan Kumar, Department of Hindi, Himachal Pradesh University, Shimla

4 Govande, Ramesh Laxman **Mahendra Mittal Vyaktitva evam krititva.** Shivaji Dr P S Patil, Head, Department of Hindi, Shivaji University, Kolhapur

5 Ingale Arunkumar Pralhad **Maharashtra Rajya mein rashtriyakrit bankon dwara karyavit rajbhasa Hindi ke pragami prayogen ka adhyayan, samasyayen evam samadhan.** Shivaji Dr I S Swami, Vdva Brahmachitanya Nagar, Solhapur

6 Mohite, Vandana Sopanrao **Athven tatha naveen dashak ke Hindi upanyason mein chitrit nari . Vishusht mahula upanyaskaron ke 1993 tak ke upanyason ke sandarbh mein** Shivaji Dr A G Chavan Department of Hindi, Shivaji University, Kolhapur

7 Patyal, Rati **Hindi ke sant kavya mein yog tatva** HP Dr (Mrs) K Raina, Department of Hindi, Himachal Pradesh University, Shimla

8 Rabari Bhikhabhai Valsabhai **Hindi aur Gujarati upanyason mein nirupit swantatrayottra gram jvan** N Gujarat Dr Alok Kumar Gupta, SD Arts and Commercial College, Manva Distt Mehsana

9 Kan Singh Rajendra Yadav **ke katha sahitya mein nari chitran.** HP Dr (Ms) Anyana Chauhan, Department of Hindi, Himachal Pradesh University, Shimla

10 Salunkhe, Anil Maruti **Himanshu Joshi ke katha sahitya mein samaj jeewan.** Shivaji Dr P S Patil, Reader and Head, Department of Hindi, Shivaji University, Kolhapur

11 Sarvjeet Kaur Krishna Sobti aur Mridula Garg **ke katha sahitya mein chitrit nari samasyeon ka tulnatmak adhyayan.** HP. Dr Chaman Lal Gupta, Department of Hindi, Himachal Pradesh University, Shimla

12. Sharma, Braham Dutt **Pragatisheel kavita mein prakriti vishas sandarbh . Naagarjun, Trilochan, Kedarnath Aggarwal** HP Dr Lallan Rai, Department of Hindi, Himachal Pradesh University, Shimla.

13. Sharma, Gautam Kumar **Vishnu Prabhakar ke katha sahitya mein samajik yatharth.** HP. Dr (Mrs) Saraswati Bhalla, Department of Hindi, Himachal Pradesh University, Shimla.

14. Sharma, Rajeshwan. **Agyeya ke kavya mein prem aur saundarya.** HP. Dr (Mrs) K Raina, Department of Hindi, Himachal Pradesh University, Shimla.

Marathi

1 Dhepe, Jayashri Shrikant **P K Atre yanchya sfut lekhnancha vangmayeen abhyas.** Shivaji. Dr R G Bidkar, Department of Marathi, Sangameshwar College, Solapur.

2 Pujari, Mukund Krishna **Marathiteel aitihasik sahityakratinchya adhare itihase va talit lekhan yanchya sambandhacha abhyas, (isvi 1860 te 1990 ya kalkhandateel thalak sahityakratinchya adhare).** Shivaji Dr M R Datar, Department of Marathi, YC Warana Mahavidyalaya, Warananagar

3 Savant, Vasudha Ashok **Shivramawami Purnanand yanchya kavyarachnancha abhyas.** Shivaji Dr P V Kulkarni, Dechand College, Arjunnagar, Tal Kalgai, Dist Kolhapur

Gujarati

1 Dave, Gayatri Ratilal **Premanand no akhayano mathi pragatati samaja bhimukhta : Ek adhyayan** N Gujarat Dr Mafatbhai Oza

2 Kumdar, Sanjay Dharmendrakumar **Gujarati pada text of Swaminarayan Cult . A study.** N Gujarat Dr Balvant S Jani, Prof and Head, Department of Gujarati, Saurashtra University, Rajkot

Malayalam

1 Ajitha Kumari, T R **Later romantic poetry in Malayalam A study based on the poetical works of Sugathakumari.** Kerala Dr D Benjamin, Department of Malayalam, University of Kerala, Trivandrum

2 Babu, Lekha S **Growth and development of Malayalam drama: A critical study** Kerala N R Gopinatha Pillai, Department of Malayalam, University of Kerala, Trivandrum

3 Geetha Devi, T A **Tagoriniyum, Persian kavikaludeyum Swadheenatha G Sankraturappinte navithakalil.** Kerala Dr D Benjamin, Department of Malayalam, University of Kerala, Trivandrum

Geography

1 Kahlon Sumrit **The state of housing in Indian cities' patterns determinants and implications: A geographical analysis.** Panjab Prof Gopal Krishan, Department of Geography, Panjab University, Chandigarh

2 Vanamore, Hari Shripathi **Spatial crime pattern in urban and rural areas of Maharashtra.** Shivaji Dr P W Deshmukh, Department of Geography, Shivaji University, Kolhapur

History

1 Salve, Sahebrao Wamanrao **Dr (Sir) William James Wankless and his times, 1865 to 1933.** Shivaji Dr B D Khane, Department of History, Shivaji University, Kolhapur.

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities

SOCIAL SCIENCES

Library & Information Science

1 Sain, Chittaranjan. *A study of personnel problems in library management with special reference to university libraries in West Bengal.* Burdwan Dr P Barua, Department of Library and Information Science, University of Burdwan, Burdwan

2 Satyanarayana, Meruvu *Public library services and community analysis in an urban setting. A study of the District Central Library of Visakhapatnam and its community.* Andhra

3 Shivalli, M P *Extra-curricular reading habits of women teachers in the academic institutions of Goa State. A critical study.* Sambalpur. Prof R K Rout, Department of Library and Information Science, Sambalpur University, Jyoti Vihar, Burla.

Journalism

1 Muley, Surekha Madhukarrao *Marathi lokgeetateel jansamvad: Ek chikitsak abhyas.* Marathwada. Dr V L Dharulkar, Reader and Head, Department of Journalism, Dr Babasaheb Ambedkar Marathwada University, Auroangabad.

Psychology

1 Pawar, Narendra Baburao *A study of stress and personality factors of the patients of some selected psychophysiological disorders i.e. asthma, peptic ulcer and essential hypertension.* Pune Dr M M Palbani, Director, Board of College and University Development, University of Pune, Pune

2 Singh, Kiran Kumar *Audyogik karamcharyon ke beech madak dravya vyasanon ke kuchh adharon ka adhyayan.* Veer Kunwar

Sociology

1 Agarwal, Ram Gopal *Bhartiya rajniti mein Bharatiya Rashtriya Congress ke bhumika: Indira yug ke vishesh sandarbh mein.* Ghasidas Dr Umashankar Shukla, D P Vipra College, Bilaspur

2 Bhujanga Rao, Sivala *Impact on Integrated Rural Development Programme: A case study.* Andhra

3 Kakirde, Sulbha *Bharatiya istriyon se sambandhit samajik adhiniyamon ka samajhasatriya anusheelan.* Devi Ahilya. Dr P N Khare, 7 Bakshubagh Colony, Indore

4 Mathew, Suseela *Psychosocial dimensions of old age: A study in Bangalore City.* Devi Ahilya Dr (Mrs) S Pothan, 84, Padmavati Colony, Indore

5 Mohd Yunus Ali. *A comparative study of divorce under the Hindu and the Muslim law.* AMU Dr Zainus Sajidin Siddiqi

6 Pandey, Ashok Kumar. *Bal shramikon ke samajik arthik samasyayen, ek samajhasatriya adhyayan.* Poorvi Uttar

Pradesh ke Ballia Jile ke pariprekshya mein. HS Gour Dr A P Singh, Lecturer, Department of Sociology, Dr Hansingh Gour Vishwavidyalaya, Sagar

7 Ravi Prasad, D M *A sociological study of dalit students.* Osmania Prof N Vijaya, Department of Sociology, Osmania University, Hyderabad

8 Sharma, Khemraj *Socio economic life of Cinchona plantation workers in hill Darjeeling.* NBU Prof R K Bhadra, Department of Sociology and Social Anthropology, North Bengal University, Rajarammohanpur, Distt Darjeeling.

Social Anthropology

1 Satapathy, Khurod Chandra *Social demographic and developmental profile of the slum dwellers: A case study of capital city, Bhubaneswar.* Utkal.

Political Science

1 Bijay Chand *A study of the structural and personnel systems of the Indian Railways in the context of the growth in the post independent Indian economy.* Burdwan. Prof S K Roy, Department of Political Science, University of Burdwan, Burdwan

2 Das, Lakshmi Narayan *Article 356 of the Constitution of India: A study of its varying uses.* Burdwan Prof A B Roy, Department of Political Science, University of Burdwan, Burdwan

3 Pal, Jayanti. *Municipal Govt and politics in Orissa: A case study of Sundargarh Municipality.* Sambalpur Dr S K Mishra, Reader, Postgraduate Department of Political Science, G M College, Sambalpur

4 Panda, Achyutananda *Constitutional and political evolution of Patna Estate: A case study.* Sambalpur. Dr S K Mishra, Reader, Postgraduate Department of Political Science, G M College, Sambalpur

5. Tamboli, Madhusudan *Bharatiya rashtriya andolan mein Bilaspur evam Raipur Jile ke pramukh swatantrata sangram senaniyon ke yogdan ka tulnatmak adhyayan.* Ghasidas Dr Umashankar Shukla, D P V College, Bilaspur

Economics

1 Jain, Lata *Dakshin Pashchimi Madhya Pradesh mein rojgar pariyojnayon ka arthik adhyayan.* Devi Ahilya. Dr S S Pawar, Department of Economics, Govt Nutan Girls Post Graduate College, Indore

2 Kakade, Onkaragouda Parasangouda *An evaluation study of farm radio lessons on sericulture.* Karnatak. Dr A S Balasubramanya, Chairman, Department of Mass Communication and Journalism, Karnatak University, Dharwad.

3 Kundu, Pankaj. *Output and employment prospects of new breed paddy in the rural economy of Hugly.* NBU Prof P

C Sarkar, Department of Economics, North Bengal University, Rajarammohanpur, Distt Darjeeling.

4 Mohinder Kumar. Training needs of dealers relating to pesticidal application on cotton crop in Punjab. PAU.

5. Mukhopadhyay, Chandra Sekhar. A study of tenurial conditions in agriculture in selected regions of West Bengal. Burdwan Prof Soumyen Sikdar, Department of Economics, University of Burdwan, Burdwan.

6. Narasimha Rao, Pemmasani. Impact of mechanisation on resource - use efficiency, productivity and employment in agriculture: A study in the command area of Nagarjuna Sagar Project, Andhra Pradesh. Andhra

7. Pulla Rao, Sure. Impact of tribal development programmes: A case study of ITD A Visakhapatnam District. Andhra.

8. Sahu, Vijay Kumar Damoh Jile ke arthik vikas mein laghu evam kutir udyogon ke bhumika. HS Gour Dr Sudhasingh Sisodia, Department of Economics, Govt Kamla Nehru Mahila College, Damoh

9. Sarma, Subrata Economics of tobacco cultivation in West Bengal with special reference to its constraints and prospects. NBU

10 Singh, Kaisham Manibahu Financing of rural development in Manipur, 1980-90. Manipur Prof M Mohendro Singh, Department of Economics, Manipur University, Imphal

11 Tewari, Manjulata. Bilaspur Jile mein gramini vidyutikaran ka samalochnatmak adhyayan. Ghasidas Dr R S Chandel, Govt T C L College, Janjgir.

12. Tiwari, Urmila M P ke Durg Jile mein asangathit khetra mein karyarat mahila shramikon ke aye evam rojgar ka arthik adhyayan: Int nirman evam gitti khadan ke sandarbh mein. Ravishankar Dr J L Bharadwaj, Reader, Department of Economics, Pt Ravishankar Shukla University, Raipur

13 Veerashekarappa Pattern and utilisation of farm finance: A micro level study with focus on institutional finance. Omania. Prof S Kishan Rao, Department of Economics, Omania University, Hyderabad and Prof S Vinod Vyasulu, TIDE, Bangalore.

Law

1. Chakraborty, Manik. International humanitarian assistance for refugees: An analytical study with special reference to Indian Law and practice. Burdwan. Dr S S Singh, Department of Law, University of Burdwan, Burdwan.

2 Hyder Valii, B. Self incrimination and the Supreme Court of India. Krishnadevaraya. Dr R G B Bhagavath Kumar, Department of Law, Sri Krishnadevaraya University College, Anantapur.

3. Jambhulkar, Kishore Sampatrao. Basic structure limitation on the amending process in the Indian Constitution: A critique. Nagpur Prof C G Raghavan, Post Graduate Department of Law, Nagpur University, Nagpur.

4. Mohammed Sahab Hussain. Tortious liability of the

state in India. Omania. Dr Ahmedullah Khan, PG College of Law, Omania University, Hyderabad.

Education

1. Chakraborty, Parijat. A study on the computer education in the high school of selected states of North East India. NEHU. Dr (Mrs) M S Padma, Department of Education, North Eastern Hill University, Shillong.

2. Dhande, Jayant Radhakrishna. A critical study of the contribution of Pandit Jawaharlal Nehru towards theory and practice of Education in India. Marathwada. Shri R B Deshpande, Principal (Retd), 14, Samadhan Colony, Behind District Court, Aurangabad.

3. Dikar, Flourette G. A study of gifted children in relation to creativity, adjustment and academic achievement in the secondary schools of Shillong. NEHU. Dr P P Gokulanathan, Department of Education, North Eastern Hill University, Shillong.

4 Mahmaz, Akhavan Tafti. A comparative study of intelligence and academic achievement of tenth grade students of east and west part of Pune City with particular reference to the socio-economic background. Pune. Dr V Z Sali 44/698, Lokmanyagar, Pune and Dr S B Gogate, 2, Home Apartment, Opp Father's School, Daund

5. Mehta, Deepak. Comparison of self concept Rysenck's personality traits of north, east, west, south and central zone cricket players of national level. Devi Ahilya. Dr M R Qureshi, Head, Department of Physical Education, Devi Ahilya Vishwavidyalaya, Indore

6 Murkute, Vitthal Santuji Nasik Jilhatool prathamik shalet shiksha ya shetmanju ranchya mule-mullachya shaikshnik samasyancha abhyas karne va tyavar upaye suchvine. Pune Dr N L Jadhav, Pravara Gramin Education Mahavidyalaya, Babbaleshwar, Ahmednagar

7 Sachundran, Rama Influence of scholastic aptitude, Mathematical concepts and teacher involvement on Mathematical problem solving ability among IX standard students. Bangalore Dr Nalini Rao, Reader (Retd), Department of Education, Bangalore University, Bangalore

8 Vimala Devi, S Effectiveness of value analysis model in developing judgement of secondary school students. Devi Ahilya Dr Prabhakar Singh, Department of Education, Devi Ahilya Vishwavidyalaya, Indore

Commerce

1. Ahmad Hussain. An appraisal of financial performance of Shipping Corporation of India. AMU. Prof Nafees Baig

2. Ahuja, Suman Umesh A critical analysis of time and cost over run in public sector undertakings in India with particular reference to Bhilai and Bokaro steel plants of Steel Authority of India Ltd. Jamia Prof Mohd Saeed, Department of Commerce, Jamia Millia Islamia, New Delhi.

3. Bajpai, Shobhit Kumar. Laghu udyogon mein karyasheel punji prabandh: Madhya Pradesh ke Bilaspur Jile ke audyogik

prakahetron ke sandarbh mein. Ghasidas. Dr L M Malviya, Department of Education, Guru Ghasidas Vishwavidyalaya, Bilaspur

4. Bargaja, Mohankumar Ambadas Regional agricultural and industrial imbalance in Ahmednagar District, Maharashtra State Pune. Dr G D Londhe, 'Phoenix' A R Marg, Behind Market Yard, Ahmednagar.

5 Datta, Arup Kumar. An evaluation of the working of agricultural co-operative credit societies in the District of Burdwan, 1981-1990. Burdwan Dr M M Maji, Department of Commerce, University of Burdwan, Burdwan

6. Hati, Amal Kumar Problems and prospects of tourism industry in West Bengal. Burdwan Sri J Sarkhel, Reader, Department of Commerce, University of Burdwan, Burdwan

7 Irfan Ahmad Evaluation of Indian industrial policy and development since 1981. AMU Prof M Mushtaque Ahmad

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Home Science

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Management

1 Salma Begum MIS needs for decision making in the functional areas of management in selected industries. AMU. Prof S M Qzair

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CLASSIFIED ADVERTISEMENTS

MANIPUR UNIVERSITY CANCHIPUR : IMPHAL - 795003

Advertisement No. 3
Dated, the 19th December, 1995

No MU/1030/Admn-I Applications on plain paper with complete mailing address and detailed biodata are invited for appointment of the Director, College Development Council of the University, in the scale of pay of Rs 4500-150-5700-200-7300/- p.m plus allowances admissible under rules. The applications should reach the Registrar, Manipur University, Imphal-795003, on or before the 29th January, 1996 along with a fee of Rs 50/- in IPO or Bank Draft in favour of the Registrar, Manipur University. The appointment shall be on deputation or on tenure basis for a period of 3 (three) years, extendable by another term of three years, but not beyond the age of 65 years. Persons who have superannuated but who are below 65 years of age may also apply. The University reserves the right to consider persons who have not applied for the post. Candidates should fulfil the following qualifications

An eminent scholar with published work of high quality actively engaged in research, with about ten years' experience of teaching and/or research and experience of guiding research at doctoral level, Or an outstanding scholar with established reputation who has made significant contribution to knowledge

And

Ten years' experience in educational administration.

Th. Joychandra Singh
REGISTRAR

BANASTHALI VIDYAPITH (Deemed to be University) SENIOR FACULTY POSITIONS

The Vidyapith invites Bio-data for the positions of Professors (one in each area):

FACULTY OF SCIENCE: Chemistry; Bio-science, Biotechnology; Electronics; Mathematical Sciences, Computer Science, Computer Applications.

FACULTY OF HOME SCIENCE: Child Development, Foods and Nutrition, Clothing and Textiles.

FACULTY OF SOCIAL SCIENCES: Economics; History, Sociology; Political Science.

FACULTY OF HUMANITIES: Hindi, English

FACULTY OF FINE ARTS: Music (Vocal-Hindusthani/Instrumental-Sitar), Dance (Indian Classical), Painting

QUALIFICATION: An eminent scholar with published work of high quality actively engaged in research with 10 years of experience in postgraduate teaching and/or research at the University/National level Institutions, including experience of guiding research at doctoral level. Or an outstanding scholar with established reputation who has made significant contribution to knowledge

Pay Scale: 4500-150-5700-200-7300. Dearness Allowance, Contributory Provident Fund, Gratuity, Insurance, Family Pension benefits as per Banasthali Vidyapith rules. **APPOINTEES MUST BECOME HABITUAL WEARER OF KHADI ON APPOINTMENT.** Vidyapith reserves the right to reduce/increase the number of vacancies or not to fill up any post(s) advertised. If any further information is desired, same may be obtained from the Vidyapith. Biodata may be sent in a sealed envelope marked 'Professor' to Prof. Diwakar Shastri, Secretary, Banasthali Vidyapith, P.O. Banasthali Vidyapith (Rajasthan) 304022, Tel (01438) 8359 Fax (01438) 8365 within three weeks from the advertisement (12/95)

ST. PAUL'S COLLEGE KALAMASSERY

WANTED

Category No. 1 — Wanted Lecturers (subject to the approval of the University/Govt in Mathematics, Physical Education and Part-time Law Lecturer under Community/Open merit. Age and qualification - As applicable for direct recruitment of teachers in Govt Colleges and University norms.

Category No. 2 — Wanted Last Grade Staff Qualifications. - Must be able to read and write Malayalam. Applications under Categories Nos 1 & 2 should reach the Manager, St. Paul's College, Kalamassery, Kerala within one month from the date of publication of this notification. The prescribed application forms can be had from the College Office on payment of Rs 100 (Rs. 108/- if by post) for Category number one and Rs 5/- under Category number two.

All the above teaching posts are for

Pre-Degree Course only. Candidates appointed under Pre-Degree Category will not have any claim for appointment to the U.C.C. scheme vacancies and have to be prepared to teach at Pre-Degree level. Pay in the state scale will only be given

MANAGER

ST. BERTHMAN'S COLLEGE CHANGANASSERY KERALA STATE, PIN-686 101 SOUTH INDIA

Wanted Lecturers in - M.B.A. Open Quota/Community Quota

Wanted Lecturers in English - Open Quota

The above posts are subject to sanction by the Mahatma Gandhi University and review under the U.C.C. Scheme

Age: According to Government service and University regulations

Qualifications: 1st or 2nd class Masters Degree in the concerned subject with not less than 55% of marks and a pass in the U.C.C. eligibility test. Those who have applied earlier for English, need not apply. The appointment in English is for the Pre-Degree level and will have no claim to the U.C.C. scheme

Apply to the Principal within one month from the date of publication of this notification. Applications and other details can be had from the college office on payment of Rs 300/-

PRINCIPAL

AL-AMEEN COLLEGE EDATHALA, ALUVA-683 564

Wanted

1) **Principal:** Qualification: First or second class Masters Degree with 16 years teaching experience at Collegiate level. Preference will be given to those who possess M.Phil or Ph.D

2) **Lecturer in Computer Science:**

Open Merit: Qualification: As prescribed by the University

Age and scale of Pay: As per the Government rules and University regulations for the above posts

Apply within 30 days of this notification on plain paper stating bio-data and qualification for the post of Principal

Application forms can be had from the College Office for the post of Lecturer in Computer Science on payment of Rs. 100/- in person or Rs 110/- by D.D. or M.O.

PRINCIPAL



INDIAN SCHOOL OF MINES DHANBAD

RESEARCH POSITIONS AT THE INDIAN SCHOOL OF MINES, DHANBAD

(Advertisement No. 8113115/96 CME/ME)

Position and consolidated Salary per month fixed	Essential qualifications and Experience
Research/Technical Officer (Rs. 4000/6000)	i) First Class B.Tech/B.E. in Mining Engg. with 3 years experience, or ii) M.Tech (Rock Mechanics/Engg Geology) with 2 years experience, or iii) Ph.D. with one year experience.
Research Associate/ SRF (Rs. 3000, 2800)	Ph.D./M.Tech in Statistics, Geology, Environmental Science/Engg. Hydrology, Applied Physics or Remote Sensing experience in Environmental R & D preferable.
Research Asstt (A) (Rs. 2500/3000)	(1) M.Tech in Environmental Science Engg. M.Sc Tech/M.Sc. in Physics, Microbiology Remote Sensing, Chemistry, Hydrogeology or Socio-Economics with a minimum of one year R & D experience. (ii) M.Tech or B.Tech in Mining Engg in First division/Engg. Geology with specialisation in Rock Mechanics.
Research Asstt (B) (Rs. 1500)	Bachelor's degree in Science, with Knowledge of Computer Application in Data Management.

All the above positions are for sponsored projects of the School in the Department of Mining Engg and Centre for Mining Environment. The appointment will be initially for one year. However, this may be extended subject to performance appraisal of the incumbent. Age limit on 1.1.96 is 35 years for Research/Technical Officers and Research Associate/SRF and 30 years for Research Assistants. Candidates may send their biodata latest by 15.2.1996 to Asstt Registrar (Acad), Indian School of Mines, Dhanbad-826004.

REGISTRAR

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY THIRUVANANTHAPURAM - 695 011

(An Institution of National Importance under Government of India)

Invites applications from Indian Nationals for the following posts -

- 1 Professor of Biochemistry
- 2 Assistant Professor of Cardiology
- 3 Assistant Professor of Cardiovascular Thoracic Surgery
- 4 Assistant Professor of Neuro Surgery
- 5 Assistant Professor of Anaesthesiology

- 6 Assistant Professor of Radiology
- 7 Administrative Medical Officer
- 8 Scientist Engineer
- 9 Purchase Officer
- 10 Chemical Engineer
- 11 Veterinary Surgeon

Post	Scale of pay	Maximum age limit as on 01.01.1996	No of posts
1	Rs 5900-200-7300	50 years	Posts 5 and 6, two vacancies each & others one vacancy each, a panel will also be prepared which will be valid for a period of one year
2 to 6	Rs 3500-125-4500	40 years	
7	Rs 3500-125-4500	45 years	
8	Rs 3000-100-3500-125-4500	40 years	
9	Rs 2000-60-2300-EB-75-3200-100-3500	45 years	
10	Rs 3500-125-4500	40 years	
11	Rs 2200-75-2800-EB-100-4000	35 years	

QUALIFICATION & EXPERIENCE POST IN THE HOSPITAL

Post 1 - Prof. of Biochemistry

- 1 MD/Ph D/Sc D/D Sc/FRCP (C)/ American Specialty Board Certification/ Diploma of the National Board in the specialty Teaching and/or research experience of not less than 14 years after the prescribed postgraduate qualification
For non-medicals - the Ph D/Sc D/D Sc should be in Biochemistry/ Organic Chemistry/Applied Chemistry (Pharmaceutical chemistry) and the experience must be in Biochemistry or Neurochemistry
- 2 The medical graduates must be registered with the Central/State Medical Council

Desirable :

Experience in administering of departmental work and research programmes

Posts 2 to 6

- 1 A medical qualification included in the Indian Medical Council Act, 1956
- 2 a Assistant Professor of Cardiology.
DM/FRCP (C)/ American Specialty Board Certification/Diploma of the National Board in the specialty
One year teaching and/or research experience after DM or its equivalent qualification in the case of 2 year course and just after DM or equivalent qualification in the case of 3 year course and 6 years after MBBS with DM or equivalent in the case of direct 5 year course
- 2.b Assistant Professor of Cardiovascular Thoracic Surgery and Assistant Professor of Neurosurgery
i. M S plus M Ch (3 year course) in the specialty concerned
OR
ii. M S plus M.Ch (2 year course) in the specialty concerned plus one year teaching or research experience after the prescribed postgraduate qualification
OR
iii. Post MBBS direct course for M Ch (5 year course) in the specialty concerned plus one year teaching/research experience
- 2.c Assistant Professor of Anaesthesia and Assistant Professor of Radiology
MD/FFARCS/FRCS(C)/American Specialty Board Certification/ Diploma of the National Board in the specialty concerned
Teaching and/or research experience of not less than 3 years in the subject after the prescribed postgraduate qualification in the case of post doctoral certificate course of this institute in Anaesthesiology/ Radiology, as the case may be, one year duration of the course will be considered as teaching/research experience

Post 7 - Administrative Medical Officer

- a. MBBS from a recognised University
- b. Masters degree or equivalent qualification in Hospital Administration from a recognised University.
- c. Experience in Hospital Administration from a reputed hospital for not less than 3 years.

Post 8 - Scientist Engineer

- a. A first class degree in Mechanical or Electrical Engineering
- b. 7 years experience of which 3 years in supervisory capacity in a reputed large hospital, after obtaining the degree in Engineering, in

the maintenance of electrical and AC installations, telephone exchange, water supply, pump installations, etc of large institutions

Desirable :

Experience in inventory control, computer system, administration of the departmental work is preferred

Post 9 - Purchase Officer

- a. BA/B.Sc/B Com degree from a recognised University
- b. 10 years experience in purchase of which 5 years should be in supervisory capacity in a purchase department of Government/similar institution/Government undertaking
Must be conversant with import procedure and clearance of imported consignments
Working knowledge in typewriting will be considered as additional qualification

POST IN BIO-MEDICAL TECHNOLOGY WING

Post 10-Chemical Engineer

- a. B Tech in Plastic/Polymer Technology/B Sc (Engg) in Chemical Engineering
- b. Five years of R&D/Industrial experience in Polymer processing
OR
a. M Tech in Polymer Technology
b. 2 years of R&D/Industrial experience

Desirable:

Ph D in Polymer Processing with R&D/Industrial experience
The candidate is expected to lead the programmes to develop polymer based biomedical devices like Catheters etc. Specific knowledge of polymer material and its relationship to processing like injection moulding, extrusion etc is required

Post 11 - Veterinary Surgeon

- a. B V.Sc from a recognised University
- b. Two years practical experience in animal care including performance of surgical operations on small and large animals
- c. Masters degree in veterinary science will be considered as additional qualification

General conditions.

All posts carry allowances at Central Government rates. Non-practising allowance at Central Government rate will be granted to Medical personnel. The academic staff recruited will be eligible for addition of upto 5 years to the qualifying service for pension in accordance with the rules of the Institute

Age, qualification and experience relaxable in exceptional cases
Persons working under Central/State Government or in a Public Sector undertaking should submit their application through proper channel
Any attempt to influence the Selection Committee or the Institute directly or indirectly will disqualify the candidates

Applications typed on plain paper with bio-data of the candidate and attested copies of certificates of educational and professional qualification, date of birth, experience etc should reach the undersigned on or before 31.1.1996

In all matters pertaining to this advertisement, the decision of the Institute shall be final and binding

DIRECTOR

Advt. No. P&A.1140/SSC/Scinet/95 dtd. 22.12.95.

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